



#11

SEQUENCE LISTING

<110> Edinger, Shlomit R
Gerlach, Valerie
MacDougall, John R
Malyankar, Muriel M
Smithson, Glennda
Millet, Isabelle
Peyman, John A
Stone, David J
Gunther, Erik
Ellerman, Karen
Shimkets, Richard A
Padigaru, Muralidhara
Guo, Xiaojia
Patturajan, Meera
Taupier Jr, Raymond J
Burgess, Catherine E
Zerhusen, Bryan D
Kekuda, Ramesh
Spytek, Kimberly A
Gangolli, Esha A
Fernandes, Elma R
Gorman, Linda

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<213> Homo sapiens

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35 40 45
Leu Ser Arg Gly Pro Arg Arg Leu Thr Ala Met Ser Pro Leu Phe Ser
50 55 60
Ala Gly Thr Cys Val Arg His Gly Thr Arg Ser Gly Ser Ala Trp Glu
65 70 75 80
Pro Glu Arg Pro Ala Ser Ser Ser Thr Arg Gly Ala Ala Gly Leu Asp
85 90 95
Gly Lys Gly Arg Asp Met Asp Glu Ala Gly Asn His Arg Ser Gln Gln
100 105 110
Thr Asn Thr Gly Thr Glu Asn Gln Thr Leu His Val Leu Thr Gln Tyr
115 120 125
Asp Leu Val Ser Ala Tyr Glu Val Asp His Arg Gly Asp Tyr Val Ser
130 135 140
His Glu Ile Met His His Gln Arg Arg Arg Ala Val Ala Val Ser
145 150 155 160
Glu Val Glu Ser Leu His Leu Arg Leu Lys Gly Pro Arg His Asp Phe
165 170 175
His Met Asp Leu Arg Thr Ser Ser Ser Leu Val Ala Pro Gly Phe Ile
180 185 190
Val Gln Thr Leu Gly Lys Thr Gly Thr Lys Ser Val Gln Thr Leu Pro
195 200 205
Pro Glu Asp Phe Cys Phe Tyr Gln Gly Ser Leu Arg Ser His Arg Asn
210 215 220
Ser Pro Ser His Gly Lys Phe Cys Glu Gly Ser Thr Arg Thr Leu
225 230 235 240
Lys Leu Cys Asn Ser Gln Lys Cys Pro Arg Asp Ser Val Asp Phe Arg
245 250 255
Ala Ala Gln Cys Ala Glu His Asn Ser Arg Arg Phe Arg Gly Arg His
260 265 270
Tyr Lys Trp Lys Pro Tyr Thr Gln Val Glu Xaa Asp Leu Cys Lys Leu
275 280 285
Tyr Cys Ile Ala Glu Gly Phe Asp Phe Phe Ser Leu Ser Asn Lys
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Val Lys Asp Gly Thr Pro Cys Ser Glu Asp Ser Arg Asn Val Cys Ile

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915

920

925

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Pro Glu Arg Pro Ala Ser Ser Thr Arg Gly Ala Ala Gly Leu Asp															
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Gly Lys Gly Arg Asp Met Asp Glu Ala Gly Asn His Arg Ser Gln Gln															
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 305 310 315 320

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Val Ser Thr Ser Tyr Ile Ser Val Arg Asn Ala Leu Arg Arg Tyr Tyr
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Gly Thr Thr Phe Asp Tyr Arg Arg Ser Tyr Asn Glu Pro Glu Asn Leu
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Gln Gly Arg Asn Pro Gly Val Ala Trp Glu Tyr Ser Met Pro Arg Leu
725 730 735

Gly Thr Glu Lys Gln Pro Pro Ala Gln Pro Ser Tyr Thr Trp Ala Ile
740 745 750

Val Arg Ser Glu Cys Ser Val Ser Cys Gly Gly Arg Cys Leu Pro
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35 40 45

Val Ser Glu Val Glu Pro Ala Phe Leu Gln Val Cys Arg Ala Arg Glu
50 55 60

Leu Arg Leu Cys Val Glu Ala Phe Pro Ile Ala Asn Ser Gln Pro Gly
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Phe Leu Asn Leu Ser Asn Val Arg Ser His Trp Arg Glu Gln His Ala
85 90 95

Ser Lys Arg Ile Ile Thr Asn Ala Met Leu Gly Glu Ser Ala Leu Ala
100 105 110

Ser Thr Arg Lys Ser Asn Cys Val Phe Phe Leu Ser Phe Tyr Phe Phe
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Gln Ser Gly Met Ile Arg Thr Glu Glu Ala Asp Tyr Phe Leu Arg Pro
130 135 140

Leu Pro Ser His Leu Ser Trp Lys Leu Gly Arg Ala Ala Gln Gly Ser
145 150 155 160

Ser Pro Ser His Val Leu Tyr Lys Arg Glu Val Leu Val Thr Ser Arg
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Thr Trp Glu Leu Ala His Gln Pro Leu His Ser Ser Asp Leu Arg Leu
180 185 190

Gly Leu Pro Gln Lys Gln His Phe Cys Gly Arg Arg Lys Lys Tyr Met
195 200 205

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210 215 220

Ser Cys Leu Arg His Lys Arg Ser Leu Leu Arg Ser His Arg Asn Glu
225 230 235 240

Glu Leu Asn Val Glu Thr Leu Val Val Val Asp Lys Lys Met Met Gln
245 250 255

Asn His Gly His Glu Asn Ile Thr Thr Tyr Val Leu Thr Ile Leu Asn
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Met Val Ser Ala Leu Phe Lys Asp Gly Thr Ile Gly Gly Asn Ile Asn
275 280 285

Ile Ala Ile Val Gly Leu Ile Leu Leu Glu Asp Glu Gln Pro Gly Leu
290 295 300

Val Ile Ser His His Ala Asp His Thr Leu Ser Ser Phe Cys Gln Trp

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Thr Leu Gly Phe Ala Pro Ile Ser Gly Met Cys Ser Lys Tyr Arg Ser			
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Cys Thr Ile Asn Glu Asp Thr Gly Leu Gly Leu Ala Phe Thr Ile Ala			
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His Glu Ser Gly His Asn Phe Gly Met Ile His Asp Gly Glu Gly Asn			
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Arg Asn Gly Val Phe Ser Trp Ser Pro Cys Ser Arg Gln Tyr Leu His			
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Lys Phe Leu Ser Thr Ala Gln Ala Ile Cys Leu Ala Asp Gln Pro Lys			
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Pro Val Lys Glu Tyr Lys Tyr Pro Glu Lys Leu Pro Gly Glu Leu Tyr			
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Gly Ala Asn Thr Gln Cys Lys Trp Gln Phe Gly Glu Lys Ala Lys Leu			
465	470	475	480
Cys Met Leu Asp Phe Lys Lys Asp Ile Cys Lys Ala Leu Trp Cys His			
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Arg Ile Gly Arg Lys Cys Glu Thr Lys Phe Met Pro Ala Ala Glu Gly			
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Thr Ile Cys Gly His Glu His Gly Ala Gly Gln Cys Val Lys Tyr			
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Gly Asp Glu Gly Pro Lys Pro Thr His Gly His Trp Ser Asp Trp Ser			
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Ser Trp Ser Pro Cys Ser Arg Thr Cys Gly Gly Val Ser His Arg			
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Cys Glu Gly Ser Thr Arg Thr Leu Lys Leu Cys Asn Ser Gln Lys Cys			
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Pro Arg Asp Ser Val Asp Phe Arg Ala Ala Gln Cys Ala Glu His Asn			
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Ser Arg Arg Phe Arg Gly Arg His Tyr Lys Trp Lys Pro Asp Gln Asp			

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Leu Ser Asn Lys Val Lys Asp Gly Thr Pro Cys Ser Glu Asp Ser Arg		
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Asn Val Cys Ile Asp Gly Ile Cys Glu Arg Val Gly Cys Asp Asn Val		
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Leu Gly Ser Asp Ala Val Glu Asp Val Cys Gly Val Cys Asn Gly Asn		
675	680	685
Asn Ser Ala Cys Thr Ile His Arg Gly Leu Tyr Leu Glu Tyr Tyr His		
690	695	700
Met Val Thr Ile Pro Ser Gly Ala Arg Ser Ile Arg Ile Tyr Glu Met		
705	710	715
720		
Asn Val Ser Thr Ser Tyr Ile Ser Val Arg Asn Ala Leu Arg Arg Tyr		
725	730	735
Tyr Leu Asn Gly His Trp Thr Val Asp Trp Pro Gly Arg Tyr Lys Phe		
740	745	750
Ser Gly Thr Thr Phe Asp Tyr Arg Arg Ser Tyr Asn Glu Pro Glu Asn		
755	760	765
Leu Ile Ala Thr Gly Pro Thr Asn Glu Thr Leu Ile Val Glu Leu Leu		
770	775	780
Phe Gln Gly Arg Asn Pro Gly Val Ala Trp Glu Tyr Ser Met Pro Arg		
785	790	795
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Leu Gly Thr Glu Lys Gln Pro Pro Ala Gln Pro Ser Tyr Thr Trp Ala		
805	810	815
Ile Val Arg Ser Glu Cys Ser Val Ser Cys Gly Gly Arg Cys Leu		
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Pro Val Leu Leu Leu Glu Ala Ala Cys Gln Pro Leu Ala Thr Ala Tyr		
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35 40 45

Leu Ser Arg Gly Pro Arg Arg Leu Thr Ala Met Ser Pro Leu Phe Ser
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Ala Gly Thr Cys Val Arg His Gly Thr Arg Ser Gly Ser Ala Trp Glu
65 70 75 80

Pro Glu Arg Pro Ala Ser Ser Thr Arg Gly Ala Ala Gly Leu Asp
85 90 95

Gly Lys Gly Arg Asp Met Asp Glu Ala Gly Asn His Arg Ser Gln Gln
100 105 110

Thr Asn Thr Gly Thr Glu Asn Gln Thr Leu His Val Leu Thr Gln Tyr
115 120 125

Asp Leu Val Ser Ala Tyr Glu Val Asp His Arg Gly Asp Tyr Val Ser
130 135 140

His Glu Ile Met His His Gln Arg Arg Arg Ala Val Ala Val Ser
145 150 155 160

Glu Val Glu Ser Leu His Leu Arg Leu Lys Gly Pro Arg His Asp Phe
165 170 175

His Met Asp Leu Arg Thr Ser Ser Ser Leu Val Ala Pro Gly Phe Ile
180 185 190

Val Gln Thr Leu Gly Lys Thr Gly Thr Lys Ser Val Gln Thr Leu Pro
195 200 205

Pro Glu Asp Phe Cys Phe Tyr Gln Gly Ser Leu Arg Ser His Arg Asn
210 215 220

Ser Pro Ser His Gly Gly Lys Phe Cys Glu Gly Ser Thr Arg Thr Leu
225 230 235 240

Lys Leu Cys Asn Ser Gln Lys Cys Pro Arg Asp Ser Val Asp Phe Arg
245 250 255

Ala Ala Gln Cys Ala Glu His Asn Ser Arg Arg Phe Arg Gly Arg His
260 265 270

Tyr Lys Trp Lys Pro Tyr Thr Gln Val Glu Ala Asp Leu Cys Lys Leu
275 280 285

Tyr Cys Ile Ala Glu Gly Phe Asp Phe Phe Ser Leu Ser Asn Lys
290 295 300

Val Lys Asp Gly Thr Pro Cys Ser Glu Asp Ser Arg Asn Val Cys Ile
305 310 315 320

Asp Gly Ile Cys Glu Leu Ser Val Val Ser Thr Ser Ala His Met Pro
 325 330 335

 Gln Pro Pro Lys Glu Asp Leu Phe Ile Leu Pro Asp Glu Tyr Lys Ser
 340 345 350

 Cys Leu Arg His Lys Arg Ser Leu Leu Arg Ser His Arg Asn Glu Glu
 355 360 365

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 370 375 380

 His Gly His Glu Asn Ile Thr Thr Tyr Val Leu Thr Ile Leu Asn Met
 385 390 395 400

 Val Ser Ala Leu Phe Lys Asp Gly Leu Met Gly Lys Asp Gly Thr Arg
 405 410 415

 His Asp His Ala Ile Leu Leu Thr Gly Leu Asp Ile Cys Ser Trp Lys
 420 425 430

 Asn Glu Pro Cys Asp Thr Leu Gly Phe Ala Pro Ile Ser Gly Met Cys
 435 440 445

 Ser Lys Tyr Arg Ser Cys Thr Ile Asn Glu Asp Thr Gly Leu Gly Leu
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 Asp Gly Glu Gly Asn Met Cys Lys Lys Ser Glu Gly Asn Ile Met Ser
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 Pro Thr Leu Ala Gly Arg Asn Gly Val Phe Ser Trp Ser Pro Cys Ser
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 Arg Gln Tyr Leu His Lys Phe Leu Ser Thr Ala Gln Ala Ile Cys Leu
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 595 600 605

 Gly Gln Cys Val Lys Tyr Gly Asp Glu Gly Pro Lys Pro Thr His Gly
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Cys	Ala	Glu	His	Asn	Ser	Arg	Arg	Phe	Arg	Gly	Arg	His	Tyr	Lys	Trp
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Lys	Pro	Tyr	Thr	Gln	Val	Glu	Asp	Gln	Asp	Leu	Cys	Lys	Leu	Tyr	Cys
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Tyr	Leu	Asn	Gly	His	Trp	Thr	Val	Asp	Trp	Pro	Gly	Arg	Tyr	Lys	Phe
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Leu	Ile	Ala	Thr	Gly	Pro	Thr	Asn	Glu	Thr	Leu	Ile	Val	Glu	Leu	Leu
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Phe	Gln	Gly	Arg	Asn	Pro	Gly	Val	Ala	Trp	Glu	Tyr	Ser	Met	Pro	Arg
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Leu	Gly	Thr	Glu	Lys	Gln	Pro	Pro	Ala	Gln	Pro	Ser	Tyr	Thr	Trp	Ala
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Ile	Val	Arg	Ser	Glu	Cys	Ser	Val	Ser	Cys	Gly	Gly	Arg	Cys	Leu	
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<210> 10
<211> 1492
<212> PRT
<213> Homo sapiens

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20	25	30	
Phe Pro Ser Val Gln Lys Val Cys Leu Asp Leu Ser Pro Gly Tyr Ser			
35	40	45	
Asp Val Lys Phe Thr Val Thr Leu Glu Thr Lys Asp Lys Thr Gln Lys			
50	55	60	
Leu Leu Glu Tyr Ser Gly Leu Lys Lys Arg His Leu His Cys Ile Ser			
65	70	75	80
Phe Leu Val Pro Pro Ala Gly Gly Thr Glu Glu Val Ala Thr Ile			
85	90	95	

Arg Val Ser Gly Val Gly Asn Asn Ile Ser Phe Glu Glu Lys Lys Lys
 100 105 110

Val Leu Ile Gln Arg Gln Gly Asn Gly Thr Phe Val Gln Thr Asp Lys
 115 120 125

Pro Leu Tyr Thr Pro Gly Gln Gln Val Tyr Phe Arg Ile Val Thr Met
 130 135 140

Asp Ser Asn Phe Val Pro Val Asn Asp Lys Tyr Ser Met Val Glu Leu
 145 150 155 160

Gln Asp Pro Asn Ser Asn Arg Ile Ala Gln Trp Leu Glu Val Val Pro
 165 170 175

Glu Gln Gly Ile Val Asp Leu Ser Phe Gln Leu Ala Pro Glu Ala Met
 180 185 190

Leu Gly Thr Tyr Thr Val Ala Val Ala Glu Gly Lys Thr Phe Gly Thr
 195 200 205

Phe Ser Val Glu Glu Tyr Val Leu Ser Pro Phe Leu Leu Leu Ser
 210 215 220

Ser Val Leu Pro Lys Phe Lys Val Glu Val Val Glu Pro Lys Glu Leu
 225 230 235 240

Ser Thr Val Gln Glu Ser Phe Leu Val Lys Ile Cys Cys Arg Tyr Thr
 245 250 255

Tyr Gly Lys Pro Met Leu Gly Ala Val Gln Val Ser Val Cys Gln Lys
 260 265 270

Ala Asn Thr Tyr Trp Tyr Arg Glu Val Glu Arg Glu Gln Leu Pro Asp
 275 280 285

Lys Cys Arg Asn Leu Ser Gly Gln Thr Asp Lys Thr Gly Cys Phe Ser
 290 295 300

Ala Pro Val Asp Met Ala Thr Phe Asp Leu Ile Gly Tyr Ala Tyr Ser
 305 310 315 320

His Gln Ile Asn Ile Val Ala Thr Val Val Glu Glu Gly Thr Gly Val
 325 330 335

Glu Ala Asn Ala Thr Gln Asn Ile Tyr Ile Ser Pro Gln Met Gly Ser
 340 345 350

Met Thr Phe Glu Asp Thr Ser Asn Phe Tyr His Pro Asn Phe Pro Phe
 355 360 365

Ser Gly Lys Met Leu Leu Lys Phe Pro Gln Gly Gly Val Leu Pro Cys
 370 375 380

Lys Asn His Leu Val Phe Leu Val Ile Tyr Gly Thr Asn Gly Thr Phe
 385 390 395 400

Asn Gln Thr Leu Val Thr Asp Asn Asn Gly Leu Ala Pro Phe Thr Leu
 405 410 415

 Glu Thr Ser Gly Trp Asn Gly Thr Asp Val Ser Leu Glu Gly Lys Phe
 420 425 430

 Gln Met Glu Asp Leu Val Tyr Asn Pro Glu Gln Val Pro Arg Tyr Tyr
 435 440 445

 Gln Asn Ala Tyr Leu His Leu Arg Pro Phe Tyr Ser Thr Thr Arg Ser
 450 455 460

 Phe Leu Gly Ile His Arg Leu Asn Gly Pro Leu Lys Cys Gly Gln Pro
 465 470 475 480

 Gln Glu Val Leu Val Asp Tyr Tyr Ile Asp Pro Ala Asp Ala Ser Pro
 485 490 495

 Asp Gln Glu Ile Ser Phe Ser Tyr Tyr Leu Ile Gly Lys Gly Ser Leu
 500 505 510

 Val Met Glu Gly Gln Lys His Leu Asn Ser Lys Lys Gly Leu Lys
 515 520 525

 Ala Ser Phe Ser Leu Ser Leu Thr Phe Thr Ser Arg Leu Ala Pro Asp
 530 535 540

 Pro Ser Leu Val Ile Tyr Ala Ile Phe Pro Ser Gly Gly Val Val Ala
 545 550 555 560

 Asp Lys Ile Gln Phe Ser Val Glu Met Cys Phe Asp Asn Gln Gln Leu
 565 570 575

 Pro Gly Ala Glu Val Glu Leu Gln Leu Gln Ala Ala Pro Gly Ser Leu
 580 585 590

 Cys Ala Leu Arg Ala Val Asp Glu Ser Val Leu Leu Arg Pro Asp
 595 600 605

 Arg Glu Leu Ser Asn Arg Ser Val Tyr Gly Met Phe Pro Phe Trp Tyr
 610 615 620

 Gly His Tyr Pro Tyr Gln Val Ala Glu Tyr Asp Gln Cys Pro Val Ser
 625 630 635 640

 Gly Pro Trp Asp Phe Pro Gln Pro Leu Ile Asp Pro Met Pro Gln Gly
 645 650 655

 His Ser Ser Gln Arg Ser Ile Ile Trp Arg Pro Ser Phe Ser Glu Gly
 660 665 670

 Thr Asp Leu Phe Ser Phe Phe Arg Asp Val Gly Leu Lys Ile Leu Ser
 675 680 685

 Asn Ala Lys Ile Lys Lys Pro Val Asp Cys Ser His Arg Ser Pro Glu
 690 695 700

Tyr Ser Thr Ala Met Gly Gly Gly His Pro Glu Ala Phe Glu Ser
705 710 715 720

Ser Thr Pro Leu His Gln Ala Glu Asp Ser Gln Val Arg Gln Tyr Phe
725 730 735

Pro Glu Thr Trp Leu Trp Asp Leu Phe Pro Ile Gly Asn Ser Gly Lys
740 745 750

Glu Ala Val His Val Thr Val Pro Asp Ala Ile Thr Glu Trp Lys Ala
755 760 765

Met Ser Phe Cys Thr Ser Gln Ser Arg Gly Phe Gly Leu Ser Pro Thr
770 775 780

Val Gly Leu Thr Ala Phe Lys Pro Phe Phe Val Asp Leu Thr Leu Pro
785 790 795 800

Tyr Ser Val Val Arg Gly Glu Ser Phe Arg Leu Thr Ala Thr Ile Phe
805 810 815

Asn Tyr Leu Lys Asp Cys Ile Arg Val Gln Thr Asp Leu Ala Lys Ser
820 825 830

His Glu Tyr Gln Leu Glu Ser Trp Ala Asp Ser Gln Thr Ser Ser Cys
835 840 845

Leu Cys Ala Asp Asp Ala Lys Thr His His Trp Asn Ile Thr Ala Val
850 855 860

Lys Leu Gly His Ile Asn Phe Thr Ile Ser Thr Lys Ile Leu Asp Ser
865 870 875 880

Asn Glu Pro Cys Gly Gly Gln Lys Gly Phe Val Pro Gln Lys Gly Arg
885 890 895

Ser Asp Thr Leu Ile Lys Pro Val Leu Val Lys Pro Glu Gly Val Leu
900 905 910

Val Glu Lys Thr His Ser Ser Leu Leu Cys Pro Lys Gly Gly Lys Val
915 920 925

Ala Ser Glu Ser Val Ser Leu Glu Leu Pro Val Asp Ile Val Pro Asp
930 935 940

Ser Thr Lys Ala Tyr Val Thr Val Leu Gly Asp Ile Met Gly Thr Ala
945 950 955 960

Leu Gln Asn Leu Asp Gly Leu Val Gln Met Pro Ser Gly Cys Gly Glu
965 970 975

Gln Asn Met Val Leu Phe Ala Pro Ile Ile Tyr Val Leu Gln Tyr Leu
980 985 990

Glu Lys Ala Gly Leu Leu Thr Glu Glu Ile Arg Ser Arg Ala Val Gly
995 1000 1005

Phe Leu Glu Ile Gly Tyr Gln Lys Glu Leu Met Tyr Lys His Ser Asn
1010 1015 1020

Gly Ser Tyr Ser Ala Phe Gly Glu Arg Asp Gly Asn Gly Asn Thr Trp
1025 1030 1035 1040

Leu Thr Ala Phe Val Thr Lys Cys Phe Gly Gln Ala Gln Lys Phe Ile
1045 1050 1055

Phe Ile Asp Pro Lys Asn Ile Gln Asp Ala Leu Lys Trp Met Ala Gly
1060 1065 1070

Asn Gln Leu Pro Ser Gly Cys Tyr Ala Asn Val Gly Asn Leu Leu His
1075 1080 1085

Thr Ala Met Lys Gly Gly Val Asp Asp Glu Val Ser Leu Thr Ala Tyr
1090 1095 1100

Val Thr Ala Ala Leu Leu Glu Met Gly Lys Asp Val Asp Asp Pro Met
1105 1110 1115 1120

Val Ser Gln Gly Leu Arg Cys Leu Lys Asn Ser Ala Thr Ser Thr Thr
1125 1130 1135

Asn Leu Tyr Thr Gln Ala Leu Leu Ala Tyr Ile Phe Ser Leu Ala Gly
1140 1145 1150

Glu Met Asp Ile Arg Asn Ile Leu Leu Lys Gln Leu Asp Gln Gln Ala
1155 1160 1165

Ile Ile Ser Gly Glu Ser Ile Tyr Trp Ser Gln Lys Pro Thr Pro Ser
1170 1175 1180

Ser Asn Ala Ser Pro Trp Ser Glu Pro Ala Ala Val Asp Val Glu Leu
1185 1190 1195 1200

Thr Ala Tyr Ala Leu Leu Ala Gln Leu Thr Lys Pro Ser Leu Thr Gln
1205 1210 1215

Lys Glu Ile Ala Lys Ala Thr Ser Ile Val Ala Trp Leu Ala Lys Gln
1220 1225 1230

His Asn Ala Tyr Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala
1235 1240 1245

Leu Gln Ala Leu Ala Lys Tyr Ala Thr Thr Ala Tyr Met Pro Ser Glu
1250 1255 1260

Glu Ile Asn Leu Val Val Lys Ser Thr Glu Asn Phe Gln Arg Thr Phe
1265 1270 1275 1280

Asn Ile Gln Ser Val Asn Arg Leu Val Phe Gln Gln Asp Thr Leu Pro
1285 1290 1295

Asn Val Pro Gly Met Tyr Thr Leu Glu Ala Ser Gly Gln Gly Cys Val
1300 1305 1310

Tyr Val Gln Thr Val Leu Arg Tyr Asn Ile Leu Pro Pro Thr Asn Met
1315 1320 1325

Lys Thr Phe Ser Leu Ser Val Glu Ile Gly Lys Ala Arg Cys Glu Gln
1330 1335 1340

Pro Thr Ser Pro Arg Ser Leu Thr Leu Thr Ile His Thr Ser Tyr Val
1345 1350 1355 1360

Gly Ser Arg Ser Ser Ser Asn Met Ala Ile Val Glu Val Lys Met Leu
1365 1370 1375

Ser Gly Phe Ser Pro Met Glu Gly Thr Asn Gln Leu Leu Gln Gln
1380 1385 1390

Pro Leu Val Lys Lys Val Glu Phe Gly Thr Asp Thr Leu Asn Ile Tyr
1395 1400 1405

Leu Asp Glu Leu Ile Lys Asn Thr Gln Thr Tyr Thr Phe Thr Ile Ser
1410 1415 1420

Gln Ser Val Leu Val Thr Asn Leu Lys Pro Ala Thr Ile Lys Val Tyr
1425 1430 1435 1440

Asp Tyr Tyr Leu Pro Gly Ser Phe Lys Leu Ser Gln Tyr Thr Ile Val
1445 1450 1455

Trp Ser Met Asn Asn Asp Ser Ile Val Asp Ser Val Ala Arg His Pro
1460 1465 1470

Glu Pro Pro Pro Phe Lys Thr Glu Ala Phe Ile Pro Ser Leu Pro Gly
1475 1480 1485

Ser Val Asn Asn
1490

<210> 11
<211> 987
<212> DNA
<213> Homo sapiens

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atgatggggc tgctcatgtt ctctttggga tttccgtgg agatccggaa gctgtggtcg 180
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caccagttt ggcaaaaggac cttgcctatac ttttttaggtt tagctttcaa gacaccctgt 780
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cctctgctat atggactctt ccagctgata gatggatttc ttattgttga agagagaaca 900
gaagatacag actgcgatgg ttcacccat cctgagtatt ttactgaggt aacaataata 960
cctaaacaac ctaggatatg acagctt 987

<210> 12
<211> 326
<212> PRT
<213> Homo sapiens

<400> 12
Met Arg Ala Asn Cys Ser Ser Ser Ala Cys Pro Ala Asn Ser Ser
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Glu Glu Glu Leu Pro Val Gly Leu Glu Val His Gly Asn Leu Glu Leu
20 25 30

Val Phe Thr Val Val Ser Thr Ile Met Met Gly Leu Leu Met Phe Ser
35 40 45

Leu Gly Cys Ser Val Glu Ile Arg Lys Leu Trp Ser His Ile Arg Arg
50 55 60

Pro Trp Gly Ile Ala Val Gly Leu Leu Cys Gln Phe Gly Leu Met Pro
65 70 75 80

Phe Thr Ala Tyr Leu Leu Ala Ile Ser Phe Ser Leu Lys Pro Val Gln
85 90 95

Ala Ile Ala Val Leu Ile Met Gly Cys Cys Arg Gly Ala Pro Ser Leu
100 105 110

Thr Phe Ser Pro Ser Gly Leu Met Glu Ile Trp Ile Ser Gly Ala Leu
115 120 125

Gly Met Met Pro Leu Cys Ile Tyr Leu Tyr Thr Trp Ser Trp Ser Leu
130 135 140

Gln Gln Asn Leu Thr Ile Pro Tyr Gln Asn Ile Gly Leu Ser Leu Gly
145 150 155 160

Ile Thr Leu Val Cys Leu Thr Ile Pro Val Ala Phe Gly Val Tyr Val
165 170 175

Asn Tyr Arg Trp Pro Lys Gln Ser Lys Ile Ile Leu Lys Ala Val Val
180 185 190

Gly Gly Val Leu Leu Leu Val Val Ala Val Ala Gly Val Val Leu Ala
195 200 205

Lys Gly Ser Trp Asn Ser Asp Ile Thr Leu Leu Thr Ile Ser Phe Ile
210 215 220

Phe Pro Leu Ile Gly His Val Thr Gly Phe Leu Leu Ala Leu Phe Thr
225 230 235 240

His Gln Ser Trp Gln Arg Thr Leu Pro Ile Phe Leu Gly Leu Ala Phe

245

250

255

Lys Thr Pro Cys Asp Thr Leu Leu Ala Met Thr Ser Cys Pro Glu Cys
260 265 270

Ser Arg Leu Ile Tyr Ala Phe Ile Pro Leu Leu Tyr Gly Leu Phe Gln
275 280 285

Leu Ile Asp Gly Phe Leu Ile Val Glu Glu Arg Thr Glu Asp Thr Asp
290 295 300

Cys Asp Gly Ser Pro Leu Pro Glu Tyr Phe Thr Glu Val Thr Ile Ile
305 310 315 320

Pro Lys Gln Pro Arg Ile
325

<210> 13

<211> 850

<212> DNA

<213> Homo sapiens

<400> 13

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tcatagaagc ggttggaaagcc aaacagatag ctcagcagga agcagagagg gccagattt 600
tggtgaaaaa ggctgagcag cagaaaaagg cggccatcat ttctgcttag ggcgactcca 660
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gcaagcttggaa agctgtggag gacatcacct accagtttt acgctctcgaa acatcacctt 780
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<210> 14

<211> 272

<212> PRT

<213> Homo sapiens

<400> 14

Met Ala Ala Lys Met Phe Glu Phe Ile Gly Lys Phe Gly Leu Ala Leu
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Val Val Ala Gly Gly Val Val Asn Ser Ala Leu Tyr Ser Val Asp Ala
20 25 30

Gly His Arg Ala Val Val Phe Asp Arg Phe Arg Gly Val Gln Asp Ile
35 40 45

Val Val Gly Lys Gly Thr His Cys Leu Ile Pro Trp Leu Gln Lys Ser

50	55	60
Ile Ile Phe Asp Cys Arg Ser Gln Pro Arg Asn Val Pro Val Ile Thr		
65	70	75
Gly Ser Lys Asp Leu Gln Asn Val Asn Leu Thr Leu Arg Ile Ile Phe		
85	90	95
Arg Pro Val Ala Ser Gln Leu Pro His Ile Phe Thr Ser Ser Gly Glu		
100	105	110
Asp His Asp Glu Arg Val Pro Pro Ser Ile Thr Asn Lys Ile Leu Lys		
115	120	125
Ser Val Val Ala Arg Phe Glu Ala Gly Glu Leu Ile Thr Gln Arg Glu		
130	135	140
Gln Ile Ser Arg Gln Val Ser Asp Asp Leu Thr Glu Pro Ala Ala Thr		
145	150	155
Phe Gly Leu Ile Leu Asp Asp Val Ser Leu Thr Tyr Leu Thr Phe Gly		
165	170	175
Lys Glu Phe Ile Glu Ala Val Glu Ala Lys Gln Ile Ala Gln Gln Glu		
180	185	190
Ala Glu Arg Ala Arg Phe Val Val Glu Lys Ala Glu Gln Gln Lys Lys		
195	200	205
Ala Ala Ile Ile Ser Ala Glu Gly Asp Ser Lys Val Ala Glu Leu Ile		
210	215	220
Thr Asn Ser Leu Ala Thr Ala Gly Asp Ala Leu Ile Glu Leu Arg Lys		
225	230	235
Leu Glu Ala Val Glu Asp Ile Thr Tyr Gln Leu Leu Arg Ser Arg Asn		
245	250	255
Ile Thr Tyr Leu Arg Ala Gly Gln Ser Met Pro Leu Gln Leu Arg Trp		
260	265	270

<210> 15
<211> 2011
<212> DNA
<213> Homo sapiens

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ttccagaaga aagactacgt acggacctgc atcatgaaca atggggttgg gtaccggggc 360

accatggcca cgaccgtggg tggcctgccc tgccaggctt ggagccacaa gttcccaa at 420
 gatcacaagt acacgccccac tctccgaat ggcttggaa agaacttctg ccgtAACCT 480
 gatggcgacc ccggagggtcc ctggtgctac acaacagacc ctgctgtcg cttccagagc 540
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 ggcgcggtag accgcacggc gtcagggcgc gagtgccagc gctggatct tcagcacccg 660
 caccagcacc ccttcgagcc gggcaagttc ctcgaccaag gtctggacga caactattgc 720
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<210> 16
 <211> 666
 <212> PRT
 <213> Homo sapiens

<400> 16															
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															15
Pro	Gly	Gln	Arg	Ser	Pro	Leu	Asn	Asp	Phe	Gln	Val	Leu	Arg	Gly	Thr
															30
Glu	Leu	Gln	His	Leu	Leu	His	Ala	Val	Val	Pro	Gly	Pro	Trp	Gln	Glu
															45
Asp	Val	Ala	Asp	Ala	Glu	Glu	Cys	Ala	Gly	Arg	Cys	Gly	Pro	Leu	Met
															50
															55
															60
Asp	Cys	Arg	Ala	Phe	His	Tyr	Asn	Val	Ser	Ser	His	Gly	Cys	Gln	Leu
															65
															70
															75
															80
Leu	Pro	Trp	Thr	Gln	His	Ser	Pro	His	Thr	Arg	Leu	Arg	Arg	Ser	Gly
															85
															90
															95
Arg	Cys	Asp	Leu	Phe	Gln	Lys	Lys	Asp	Tyr	Val	Arg	Thr	Cys	Ile	Met
															100
															105
															110

Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala Thr Thr Val Gly Gly
 115 120 125

Leu Pro Cys Gln Ala Trp Ser His Lys Phe Pro Asn Asp His Lys Tyr
 130 135 140

Thr Pro Thr Leu Arg Asn Gly Leu Glu Glu Asn Phe Cys Arg Asn Pro
 145 150 155 160

Asp Gly Asp Pro Gly Gly Pro Trp Cys Tyr Thr Thr Asp Pro Ala Val
 165 170 175

Arg Phe Gln Ser Cys Gly Ile Lys Ser Cys Arg Glu Ala Ala Cys Val
 180 185 190

Trp Cys Asn Gly Glu Glu Tyr Arg Gly Ala Val Asp Arg Thr Glu Ser
 195 200 205

Gly Arg Glu Cys Gln Arg Trp Asp Leu Gln His Pro His Gln His Pro
 210 215 220

Phe Glu Pro Gly Lys Phe Leu Asp Gln Gly Leu Asp Asp Asn Tyr Cys
 225 230 235 240

Arg Asn Pro Asp Gly Ser Glu Arg Pro Trp Cys Tyr Thr Thr Asp Pro
 245 250 255

Gln Ile Glu Arg Glu Phe Cys Asp Leu Pro Arg Cys Gly Ser Glu Ala
 260 265 270

Gln Pro Arg Gln Glu Ala Thr Thr Val Ser Cys Phe Arg Gly Lys Gly
 275 280 285

Glu Gly Tyr Arg Gly Thr Ala Asn Thr Thr Ala Gly Val Pro Cys
 290 295 300

Gln Arg Trp Asp Ala Gln Ile Pro His Gln His Arg Phe Thr Pro Glu
 305 310 315 320

Lys Tyr Ala Cys Lys Asp Leu Arg Glu Asn Phe Cys Arg Asn Pro Asp
 325 330 335

Gly Ser Glu Ala Pro Trp Cys Phe Thr Leu Arg Pro Gly Met Arg Ala
 340 345 350

Ala Phe Cys Tyr Gln Ile Arg Arg Cys Thr Asp Asp Val Arg Pro Gln
 355 360 365

Thr Ala Thr Thr Ala Gln Gly Ser Ser Thr Ala Ala Arg Ser Ala Arg
 370 375 380

Pro Ala Arg Val Ser Ser Ala Ser Ala Gly Pro Leu Arg Arg Arg Thr
 385 390 395 400

Ser Arg Ser Ser Arg Leu Pro Pro Asn Arg Met His Asn Trp Arg Arg
 405 410 415

Thr Ser Ala Gly Thr Gln Met Gly Ile Ala Met Gly Pro Gly Ala Thr
 420 425 430
 Arg Trp Thr Gln Gly Pro His Ser Thr Thr Val Pro Cys Asp Ala Ala
 435 440 445
 Leu Met Thr Ser Arg His Gln Ser Trp Thr Pro Gln Thr Arg Cys Ser
 450 455 460
 Leu Arg Ser Val Ala Arg Gly Trp Ile Gly Trp Ile Ser Gly Val Pro
 465 470 475 480
 Ser Cys Ala Trp Leu Gly Ala Ile Arg Ala Thr His Pro Gly Gln Ser
 485 490 495
 Ala Cys Gly Ile Gly Met Leu Pro Leu Thr Gly Tyr Glu Val Trp Leu
 500 505 510
 Gly Thr Leu Phe Gln Asn Pro Gln His Gly Glu Pro Ser Leu Gln Arg
 515 520 525
 Val Pro Val Ala Lys Met Val Cys Gly Pro Ser Gly Ser Gln Leu Val
 530 535 540
 Leu Leu Lys Leu Glu Arg Ser Val Thr Leu Asn Gln Arg Val Ala Leu
 545 550 555 560
 Ile Cys Leu Pro Pro Glu Trp Tyr Val Val Pro Pro Gly Thr Lys Cys
 565 570 575
 Glu Ile Ala Gly Trp Gly Glu Thr Lys Gly Thr Gly Asn Asp Thr Val
 580 585 590
 Leu Asn Val Ala Leu Leu Asn Val Ile Ser Asn Gln Glu Cys Asn Ile
 595 600 605
 Lys His Arg Gly Arg Gly Asp Tyr Gly Gly Pro Leu Ala Cys Phe Thr
 610 615 620
 His Asn Cys Trp Val Leu Glu Gly Ile Ile Ile Pro Asn Arg Val Cys
 625 630 635 640
 Ala Arg Ser Cys Trp Pro Ala Val Phe Thr Arg Val Ser Val Phe Val
 645 650 655
 Asp Trp Ile His Lys Val Met Arg Leu Gly
 660 665

<210> 17
 <211> 634
 <212> DNA
 <213> Homo sapiens

<400> 17
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 gcccacatggc agcagctggg aggaagatgg cgcctgggtgg acagcaaacg ctttgatgaa 120

tacatgaagg agggaggagt gggaaactgct ttgcgaaaaaa tggacgcaat gcccaagcca 180
gattgtatca tcacttgtga tggcaaaaac ctcaccataa aaaccgagag cactttgaaa 240
acacagttt ctgttaccct gggagagaag tttgaagaaa ccacagctga tggcagaaaa 300
actcagactg tgtcagctt tgcagatggt gcattggttc agcatcagga gtggatggg 360
aaggaaaaaca caataacaag aaaactgaaa gatggaaat tagtgtgta ctgtgtcatg 420
aacaatgtcg cctgtactcg gatctatgaa aaagtagaaat aaaaattcca tcatcactt 480
ggacaggagt taactaatag aatgatcaag ctcagttcaa tgagcaaatc tccatagtgt 540
ttttttcat tactgtgttc aattatctt atcacaaacg tttcacatgc agctattca 600
aagtgtctt gattaattag gatcatccct ttgg 634

<210> 18
<211> 134
<212> PRT
<213> Homo sapiens

<400> 18

Met Ala Thr Val Gln Gln Leu Gly Gly Arg Trp Arg Leu Val Asp Ser
1 5 10 15

Lys Arg Phe Asp Glu Tyr Met Lys Glu Gly Gly Val Gly Thr Ala Leu
20 25 30

Arg Lys Met Asp Ala Met Ala Lys Pro Asp Cys Ile Ile Thr Cys Asp
35 40 45

Gly Lys Asn Leu Thr Ile Lys Thr Glu Ser Thr Leu Lys Thr Gln Phe
50 55 60

Ser Cys Thr Leu Gly Glu Lys Phe Glu Glu Thr Thr Ala Asp Gly Arg
65 70 75 80

Lys Thr Gln Thr Val Cys Ser Phe Ala Asp Gly Ala Leu Val Gln His
85 90 95

Gln Glu Trp Asp Gly Lys Glu Asn Thr Ile Thr Arg Lys Leu Lys Asp
100 105 110

Gly Lys Leu Val Val Tyr Cys Val Met Asn Asn Val Ala Cys Thr Arg
115 120 125

Ile Tyr Glu Lys Val Glu
130

<210> 19
<211> 822
<212> DNA
<213> Homo sapiens

<400> 19

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gagccgcattc tggctgtctg tgggttcat ctttcgtgtg ctgggttacg tgggtggcagc 120
ggaggagggtg tggacgatg agcagaagga ctttgtctgc aacaccaagc agcccggctg 180
ccccaaacgtc tgcttatgacg agttctccc cgtgtccac gtgcgcctct gggccctaca 240
gctcatctcg gtcacgtgcc cctcactgct cgtggtcatg cacgtggcct accgcgagga 300
acgcgagcgc aagcaccacc tgaaaacacgg gccaaatgcc ccgtccctgt acgacaacct 360

gagcaagaag cggggcggac tgtggtggac gtacttgctg agcctcatct tcaaggccgc 420
cgtggatgct ggcttcctct atatcttcca ccgcctctac aaggattatg acatgccccg 480
cgtggtgcc tgctccgtgg agccttgc ccacactgtg gactgttaca tctcccgccc 540
cacggagaag aaggtcttca cctacttcat ggtgaccaca gctgccatct gcattctgtct 600
caacctcagt gaagtcttct acctggggg caagaggtgc atggagatct tcggcccccag 660
gcaccggcgg cctcggtgcc gggaatgcct acccgatacg tgcccaccat atgtcctctc 720
ccagggaggg cacccgtgagg atgggaactc tggcttaatg aaggctgggt cggcccccagt 780
ggatgcaggt ggttatccat aacctgcgag atcagcagat aa 822

<210> 20
<211> 266
<212> PRT
<213> Homo sapiens

<400> 20
Met Asn Trp Ala Phe Leu Gln Gly Leu Leu Ser Gly Val Asn Lys Tyr
1 5 10 15

Ser Thr Val Leu Ser Arg Ile Trp Leu Ser Val Val Phe Ile Phe Arg
20 25 30

Val Leu Val Tyr Val Val Ala Ala Glu Glu Val Trp Asp Asp Glu Gln
35 40 45

Lys Asp Phe Val Cys Asn Thr Lys Gln Pro Gly Cys Pro Asn Val Cys
50 55 60

Tyr Asp Glu Phe Phe Pro Val Ser His Val Arg Leu Trp Ala Leu Gln
65 70 75 80

Leu Ile Leu Val Thr Cys Pro Ser Leu Leu Val Val Met His Val Ala
85 90 95

Tyr Arg Glu Glu Arg Glu Arg Lys His His Leu Lys His Gly Pro Asn
100 105 110

Ala Pro Ser Leu Tyr Asp Asn Leu Ser Lys Lys Arg Gly Gly Leu Trp
115 120 125

Trp Thr Tyr Leu Leu Ser Leu Ile Phe Lys Ala Ala Val Asp Ala Gly
130 135 140

Phe Leu Tyr Ile Phe His Arg Leu Tyr Lys Asp Tyr Asp Met Pro Arg
145 150 155 160

Val Val Ala Cys Ser Val Glu Pro Cys Pro His Thr Val Asp Cys Tyr
165 170 175

Ile Ser Arg Pro Thr Glu Lys Lys Val Phe Thr Tyr Phe Met Val Thr
180 185 190

Thr Ala Ala Ile Cys Ile Leu Leu Asn Leu Ser Glu Val Phe Tyr Leu
195 200 205

Val Gly Lys Arg Cys Met Glu Ile Phe Gly Pro Arg His Arg Arg Pro
210 215 220

Arg Cys Arg Glu Cys Leu Pro Asp Thr Cys Pro Pro Tyr Val Leu Ser
225 230 235 240

Gln Gly Gly His Pro Glu Asp Gly Asn Ser Val Leu Met Lys Ala Gly
245 250 255

Ser Ala Pro Val Asp Ala Gly Gly Tyr Pro
260 265

<210> 21
<211> 546
<212> DNA
<213> Homo sapiens

<400> 21
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tgtgaactaa atccacagcc acataataat caaaacagaa aagcaaaaga aagccacttc 180
aggaaataacc acggtcacac ctcagttgc ttcatgctac agattataga aaatatgtt 240
ctgccccggc caccaatctg ttggttcaca ttactacgtg agcaatgtaa gtgtttgcaa 300
gaagccatcc actatctaaa tatcagatat agatgctcca aagcagctac gtcagtgtatg 360
agaacagaga aaatacgttag caacatttca ttaagttgaa ttctaataact taaaaggctc 420
cttttagtac tgacattctg gattttaaaa gttatgttga ccgcattgttc tcactcacaa 480
gtgggagttg aacaatgaga acacacggac acgggaaagg gaacatcaca caccaggccc 540
tgtcag 546

<210> 22
<211> 61
<212> PRT
<213> Homo sapiens

<400> 22
Met Leu Gln Ile Ile Glu Asn Met Leu Leu Pro Gly Pro Pro Ile Cys
1 5 10 15

Trp Phe Thr Leu Leu Arg Glu Gln Cys Lys Cys Leu Gln Glu Ala Ile
20 25 30

His Tyr Leu Asn Ile Arg Tyr Arg Cys Ser Lys Ala Ala Thr Ser Val
35 40 45

Met Arg Thr Glu Lys Ile Arg Ser Asn Ile Ser Leu Ser
50 55 60

<210> 23
<211> 2309
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (2196)
<223> Wherein n is an a or t or c or g.

<400> 23

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ggccagaaaat ttccgcctg agctggggca cgagactgtg ggatcagttc gacagcttag 120
acaagcatac acaatggggaa attgacttct tgaaaagata tgccaaattt gttaaagaga 180
gatagaaaaat tgaacagaac tatgcgaaac aattgagaaa tctggtaag aagtactgcc 240
ccaaacgttc atccaaagat gaagagccac ggttacctc gtgttagcc ttttttaata 300
tccttaatga gttaaatgac tatgcaggac agcgagaagt tgttagcagaa gaaatggcgc 360
acagagtgtt tggtgaatta atgagatatg ctcatgtatc gaaaactgaa agaaaaatgc 420
atctgcaaga aggacgaaaaa gctcaacaat atcttgacat gtgctggaaa cagatgggta 480
atagtaaaaaa gaagtttgaa agagaatgta gagaggcaga aaaggcacaa cagagttatg 540
aaagatttggaa taatgatact aatgcaacca aggagatgt tgaaaatgcc aaacagcagt 600
tgaatctgcg tacgcataatg gccgatgaaa ataaaaatgc atatgtcga caattacaaa 660
actttaatgg agaacaacat aaacattttt atgttagtcat tcctcagatt tacaagcaac 720
tacaagaaaat ggacgaacga aggactatta aactcagtga gtgttacaga ggatttgctg 780
actcagaacg caaagtattt cccatcattt caaaatgttt ggaaggaatg attcttgtag 840
caaaatcagt tgatgaaaga agagactctc aaatgggtt agactccttc aaatctgggt 900
ttgaacctcc aggagacttt ccatttgaag attacagtca acatatatata agaaccattt 960
ctgatgggac tattcgtgca tccaaacagg agagtggaa gatggatgcc aaaaccccag 1020
taggaaaggc caagggcaaa ttgtggctct ttggaaagaa gccaaaggc ccagcactag 1080
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aacttaacag agaactacag aaagaatcag accaaaaaaga tgcactcaac aaaatgaaaag 1200
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aagtccgtgg gccaccccaag cagcatggtc accacaatga gttttagatgat gaatttgagg 1500
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aggctcaaag agagtggag aagcaagttt catgagtgc tgcagacatg atttttttt 1860
tactaacttc attagcattt ccatacattt tttttaaaaa tcataatacc aacccttaag 1920
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attttagctgt cccaaacagga ttgtctccc tccagctct ggtttaatt ggcttttaga 2100
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cctaacatcc tggcatgt ctgcgttat tgagcnagat tttcaggcat gtcttttagaa 2220
tccccctgttn ctgtcaaagc ctggtttgtt ttacatttgtt ngtcaatcn ctttgtcaac 2280
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<210> 24

<211> 547

<212> PRT

<213> Homo sapiens

<400> 24

Met Ser Trp Gly Thr Glu Leu Trp Asp Gln Phe Asp Ser Leu Asp Lys
1 5 10 15

His Thr Gln Trp Gly Ile Asp Phe Leu Glu Arg Tyr Ala Lys Phe Val
20 25 30

Lys Glu Arg Ile Glu Ile Glu Gln Asn Tyr Ala Lys Gln Leu Arg Asn
35 40 45

Leu	Val	Lys	Lys	Tyr	Cys	Pro	Lys	Arg	Ser	Ser	Lys	Asp	Glu	Glu	Pro
50						55					60				
Arg	Phe	Thr	Ser	Cys	Val	Ala	Phe	Phe	Asn	Ile	Leu	Asn	Glu	Leu	Asn
65					70				75			80			
Asp	Tyr	Ala	Gly	Gln	Arg	Glu	Val	Val	Ala	Glu	Glu	Met	Ala	His	Arg
				85					90				95		
Val	Tyr	Gly	Glu	Leu	Met	Arg	Tyr	Ala	His	Asp	Leu	Lys	Thr	Glu	Arg
				100				105				110			
Lys	Met	His	Leu	Gln	Glu	Gly	Arg	Lys	Ala	Gln	Gln	Tyr	Leu	Asp	Met
				115				120				125			
Cys	Trp	Lys	Gln	Met	Gly	Asn	Ser	Lys	Lys	Phe	Glu	Arg	Glu	Cys	
				130			135			140					
Arg	Glu	Ala	Glu	Lys	Ala	Gln	Gln	Ser	Tyr	Glu	Arg	Leu	Asp	Asn	Asp
145				150					155			160			
Thr	Asn	Ala	Thr	Lys	Ala	Asp	Val	Glu	Asn	Ala	Lys	Gln	Gln	Leu	Asn
				165				170			175				
Leu	Arg	Thr	His	Met	Ala	Asp	Glu	Asn	Lys	Asn	Ala	Tyr	Ala	Ala	Gln
				180				185			190				
Leu	Gln	Asn	Phe	Asn	Gly	Glu	Gln	His	Lys	His	Phe	Tyr	Val	Val	Ile
				195			200		205						
Pro	Gln	Ile	Tyr	Lys	Gln	Leu	Gln	Glu	Met	Asp	Glu	Arg	Arg	Thr	Ile
				210			215			220					
Lys	Leu	Ser	Glu	Cys	Tyr	Arg	Gly	Phe	Ala	Asp	Ser	Glu	Arg	Lys	Val
225				230					235			240			
Ile	Pro	Ile	Ile	Ser	Lys	Cys	Leu	Glu	Gly	Met	Ile	Leu	Ala	Ala	Lys
				245				250			255				
Ser	Val	Asp	Glu	Arg	Arg	Asp	Ser	Gln	Met	Val	Val	Asp	Ser	Phe	Lys
				260				265			270				
Ser	Gly	Phe	Glu	Pro	Pro	Gly	Asp	Phe	Pro	Phe	Glu	Asp	Tyr	Ser	Gln
				275			280			285					
His	Ile	Tyr	Arg	Thr	Ile	Ser	Asp	Gly	Thr	Ile	Ser	Ala	Ser	Lys	Gln
				290				295			300				
Glu	Ser	Gly	Lys	Met	Asp	Ala	Lys	Thr	Pro	Val	Gly	Lys	Ala	Lys	Gly
305				310					315			320			
Lys	Leu	Trp	Leu	Phe	Gly	Lys	Lys	Pro	Lys	Gly	Pro	Ala	Leu	Glu	Asp
				325				330			335				
Phe	Ser	His	Leu	Pro	Pro	Glu	Gln	Arg	Arg	Lys	Lys	Leu	Gln	Gln	Arg
				340			345			350					

Ile Asp Glu Leu Asn Arg Glu Leu Gln Lys Glu Ser Asp Gln Lys Asp
 355 360 365
 Ala Leu Asn Lys Met Lys Asp Val Tyr Glu Lys Asp Pro Gln Met Gly
 370 375 380
 Asp Pro Gly Ser Leu Gln Pro Lys Leu Ala Glu Thr Met Asn Asn Ile
 385 390 395 400
 Asp Arg Leu Arg Met Glu Ile His Lys Asn Glu Ala Trp Leu Ser Glu
 405 410 415
 Val Glu Gly Lys Thr Gly Gly Arg Gly Asp Arg Arg His Ser Ser Asp
 420 425 430
 Ile Asn His Leu Val Thr Gln Gly Arg Glu Ser Pro Glu Gly Ser Tyr
 435 440 445
 Thr Asp Asp Ala Asn Gln Glu Val Arg Gly Pro Pro Gln Gln His Gly
 450 455 460
 His His Asn Glu Phe Asp Asp Glu Phe Asp Asp Asp Pro Leu Pro
 465 470 475 480
 Ala Ile Gly His Cys Lys Ala Ile Tyr Pro Phe Asp Gly His Asn Glu
 485 490 495
 Gly Thr Leu Ala Met Lys Glu Gly Glu Val Leu Tyr Ile Ile Glu Glu
 500 505 510
 Asp Lys Gly Asp Gly Trp Thr Arg Ala Arg Arg Gln Asn Gly Glu Glu
 515 520 525
 Gly Tyr Val Pro Thr Ser Tyr Ile Asp Val Thr Leu Glu Lys Asn Ser
 530 535 540
 Lys Gly Ser
 545

<210> 25

<211> 1787

<212> DNA

<213> Homo sapiens

<400> 25

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 ggATCTTCAG agCAGAGCCT ggAGACCAcgc AGCATCCCAT ttCTCAGGCG GTGTGCTGGC 180
 gttCCATGCG acGTGGCTGT gcAGTGTGG gagCCCTGGG gCTGCTGGCC gGTGCAggTG 240
 ttGGCTCATG gCTCCTAGTG ctGTATCTGT gtCCCTGCTGC ctCTCAGCCC attTCCGGGA 300
 cCTTGCAGGA tgAGGAGATA actTTGAGCT gCTCAGAGGC cAGCgCTGAG gaAGCTCTGC 360
 tCCCTGCACT tCCAAAACA gtATCTTCA gaATAAACAG CGAAgACTTC ttGCTGGAAG 420
 CGCAAGTGGAG ggATCAGCCA CGCTGGCTCC tgGTCTGCCA tgAGGGCTGG agCCCCGCC 480
 tGGGGCTGCA gATCTGCTGG agCCTGGGC atCTCAGACT cACTCACCAc aAGGGAGTAA 540
 acCTCACTGA catCAAACtC aACAGTCCC aggAGTTGC tcAGCTCTCT cCTAGACTGG 600

gaggcttcct ggaggaggcg tggcagccca gtaggactac tgaggctgtt aggaacaact 660
 gcacttctgg tcaagttgtt tccctcagat gctctgagtg tggagcgagg cccctggctt 720
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 ccttggcaa atttctaact ttgttaaacc ttaatttcct gataataacc atgatggcta 1740
 cttatatgct attgttatat gctattaaat aagacccgta caatgcc 1787

<210> 26
 <211> 1787
 <212> DNA
 <213> Homo sapiens

<400> 26
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 tattatcagg aaattaaggt ttaacaaagt tagaaatttg ccaaaggctcg acacaggaaa 120
 tggtagatct gggatacaaa ctcaggcata ctcttaccca gttcatcctt aaactgatag 180
 aaatccaatg gatccatgt ttaagcttca ctcttcctc cactcaactt ggggaatatg 240
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 tcgagggcag gtcttttaga aatctccctg ccctactcctt gccccccacac tcacctgagc 360
 agtgtcatgg atccagtcca gaaactcagc taccttggcg tagacacctg ggtgattggg 420
 ctctgcgcag ccacgcccccc agctgaccac ccccactagg cgccatgtgt ccccatctgg 480
 gcacactagg gggcccccgc tatctccctg gcatgcata gcccctccgt ccaggttagcc 540
 agcgcaaagc atgcgggggg tgagggtctc gctgtacacg caagagctgt tgcaagagctg 600
 agtgtctgagc aggggcacca ccgtgtccctg gagcatatcc gagctgttaag tatggctagg 660
 gtgggtgtgg ccccagccag acacccagca ccgcgagccc ttcggaaaat gctttccctt 720
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 gagggcgcacg tcgttagtcat gattctggc actgttagagg ggtgtggga taatcccttc 840
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 gcgtggcgt agcacagagc ccccacacgt gtccggaaag cccaggccca cgctggccctg 1020
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 agcgctggcc tctgagcagc tcaaaggat tctctcatcc tgcaaggctcc cggaaatggg 1500
 ctgagagggca gcaggacaca gatacagcac taggagccat gagccaacac ctgcaccggc 1560
 cagcagcccc agggctccca gcactgcaca gccacgtcgc atggaaacgcc agcacaccgc 1620
 ctgagaaatg ggatgtctgt ggtctccagg ctctgctctg aagatcccag gtcctggcc 1680
 ctccctctgca tactgggccc ccatagggg ttggtcatcc agcatcaggc tcataggggt 1740

cagtggcaact gttgtaaagc ctcagggtct actaggcaat gttccgc

1787

<210> 27
<211> 472
<212> PRT
<213> Homo sapiens

<400> 27

Met Ser Leu Met Leu Asp Asp Gln Pro Pro Met Glu Ala Gln Tyr Ala
1 5 10 15

Glu Glu Gly Pro Gly Pro Gly Ile Phe Arg Ala Glu Pro Gly Asp Gln
20 25 30

Gln His Pro Ile Ser Gln Ala Val Cys Trp Arg Ser Met Arg Arg Gly
35 40 45

Cys Ala Val Leu Gly Ala Leu Gly Leu Leu Ala Gly Ala Gly Val Gly
50 55 60

Ser Trp Leu Leu Val Leu Tyr Leu Cys Pro Ala Ala Ser Gln Pro Ile
65 70 75 80

Ser Gly Thr Leu Gln Asp Glu Glu Ile Thr Leu Ser Cys Ser Glu Ala
85 90 95

Ser Ala Glu Glu Ala Leu Leu Pro Ala Leu Pro Lys Thr Val Ser Phe
100 105 110

Arg Ile Asn Ser Glu Asp Phe Leu Leu Glu Ala Gln Val Arg Asp Gln
115 120 125

Pro Arg Trp Leu Leu Val Cys His Glu Gly Trp Ser Pro Ala Leu Gly
130 135 140

Leu Gln Ile Cys Trp Ser Leu Gly His Leu Arg Leu Thr His His Lys
145 150 155 160

Gly Val Asn Leu Thr Asp Ile Lys Leu Asn Ser Ser Gln Glu Phe Ala
165 170 175

Gln Leu Ser Pro Arg Leu Gly Gly Phe Leu Glu Glu Ala Trp Gln Pro
180 185 190

Ser Arg Thr Thr Glu Ala Val Arg Asn Asn Cys Thr Ser Gly Gln Val
195 200 205

Val Ser Leu Arg Cys Ser Glu Cys Gly Ala Arg Pro Leu Ala Ser Arg
210 215 220

Ile Val Gly Gly Gln Ser Val Ala Pro Gly Arg Trp Pro Trp Gln Ala
225 230 235 240

Ser Val Ala Leu Gly Phe Arg His Thr Cys Gly Gly Ser Val Leu Ala
245 250 255

Pro Arg Trp Val Val Thr Ala Ala His Cys Met His Ser Phe Arg Leu
 260 265 270

 Ala Arg Leu Ser Ser Trp Arg Val His Ala Gly Leu Val Ser His Ser
 275 280 285

 Ala Val Arg Pro His Gln Gly Ala Leu Val Glu Arg Ile Ile Pro His
 290 295 300

 Pro Leu Tyr Ser Ala Gln Asn His Asp Tyr Asp Val Ala Leu Leu Arg
 305 310 315 320

 Leu Gln Thr Ala Leu Asn Phe Ser Asp Thr Val Gly Ala Val Cys Leu
 325 330 335

 Pro Ala Lys Glu Gln His Phe Pro Lys Gly Ser Arg Cys Trp Val Ser
 340 345 350

 Gly Trp Gly His Thr His Pro Ser His Thr Tyr Ser Ser Asp Met Leu
 355 360 365

 Gln Asp Thr Val Val Pro Leu Leu Ser Thr Gln Leu Cys Asn Ser Ser
 370 375 380

 Cys Val Tyr Ser Gly Ala Leu Thr Pro Arg Met Leu Cys Ala Gly Tyr
 385 390 395 400

 Leu Asp Gly Arg Ala Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu
 405 410 415

 Val Cys Pro Asp Gly Asp Thr Trp Arg Leu Val Gly Val Val Ser Trp
 420 425 430

 Gly Arg Gly Cys Ala Glu Pro Asn His Pro Gly Val Tyr Ala Lys Val
 435 440 445

 Ala Glu Phe Leu Asp Trp Ile His Asp Thr Ala Gln Val Ser Val Gly
 450 455 460

 Ala Gly Val Gly Gln Gly Asp Phe
 465 470

<210> 28
 <211> 2148
 <212> DNA
 <213> Homo sapiens

<400> 28
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 tgctggcattt gcatttaatc aatgcattggc cagagaacag gagcggaaaca ttgccttagta 120
 gaccctgagg ctttacaaca gtgctactga ccccttatgag cctgatgctg gatgaccaac 180
 ccccttatgga ggcccagtat gcagaggagg gcccaggacc tgggatcttc agagcagagc 240
 ctggagacca gcagcatccc atttctcagg cggtgtgctg gcgttccatg cgacgtggct 300
 gtgcagtgtct gggagccctg gggctgtgg ccgggtgcagg tggatgtca tggctccatg 360
 tgctgtatct gtgtcctgtc gcctctcagg ccatttccgg gaccttgcag gatgaggaga 420
 taactttgag ctgctcagag gccagcgctg aggaagctct gctccctgca ctccccaaaa 480

cagtatctt cagaataaac agcgaagact tcttgctgga agcgcaagtg agggatcagc 540
 cacgctggct cctggctgc catgagggtc ggagccccgc cctggggctg cagatctgct 600
 ggagccttgg gcatctcaga ctcactcacc acaaggagt aaacctcaact gacatcaaac 660
 tcaacagtcc ccaggagttt gtcagctct ctcctagact gggaggcttc ctggaggagg 720
 cgtggcagcc cagaacaac tgcacttctg gtcaagttgt ttccctcaga tgctctgagt 780
 gtggagcggag gcccctggct tccggatag ttggggca gtctgtggct cctgggcgt 840
 ggccgtggca ggccagcgtg gcccctggct tccggcacac gtgtggggc tctgtgttag 900
 cgccacgcgtg ggtgggtact gtcacatt gtatgcacag tgcccagaat catgactacg 960
 acgtgcacct cctggggctc cagaccgctc tcaacttctc agacactgtg ggcgtgtgt 1020
 gcctgcccgc caaggaacag cattttccga agggctcgcg gtgctgggtg tccggctgtt 1080
 gccacaccca cccttagccat acttacagct cgatatgtct ccaggacacg gtgggtcccc 1140
 tgctcagcac tcagctctc aacagctctt gcgtgtacag cggagccctc accccccgca 1200
 tgcttgcgc tggctacctg gacggaaagg ctgatgcattt ccaggagat agcggggggcc 1260
 cccttagtgtg cccagatggg gacacatggc gcttagtggg ggtggcagc tggggggcgt 1320
 gctgcgcaga gcccaatcac ccaggtgtct acgccaaggt agctgagttt ctggactgga 1380
 tccatgacac tgctcaggac tccctcctt gactctgtct gtttcctcca gtctcactgc 1440
 acaccactgc ctcatgcctc ctggggcctc cagcagctcc actaatggag gagaggcagt 1500
 agcctccogac acagaacgca tggacccctt actactgtgt gtgaggaaca gtcactaccc 1560
 actggccagc caccagcca acaggtctct cctcttgggc cctgatttca gacttcctt 1620
 tctcaactaga gactcaatga cagaagagag gctgggactt ggttggcat gctgtggttg 1680
 ctgagggatg agggggagga gagaggtagg agctggagat gaagagactg ctagaagcag 1740
 caggaaggctt gcccttctc cctctccctt cctggggctt gtgtgagttt tttagggagg 1800
 gtgactggga ggtggggggcc gttccacctt ttccctgtgc tctagtgaaa ctaagtgcct 1860
 cccttagagga ctccatggct gagaggctcc tggcagatg ggtcaaggc tggccagtc 1920
 ccagatgaag cctatgggag tcaggaccctt ctccactctc cctctccact ccccttcctg 1980
 ttctcacctg gctgtggctg gccctgtgtg ggtgggtac actggaaaac aagaaggttt 2040
 gagttggctt aggacattgg ttttaatga cagttctgtg aactgtcca aggaggttct 2100
 gttattaaag tgatatatgg tcttgaaaaa aaaaaaaaaa aaaaaaaaaa 2148

<210> 29
 <211> 418
 <212> PRT
 <213> Homo sapiens

<400> 29

Met	Ser	Leu	Met	Leu	Asp	Asp	Gln	Pro	Pro	Met	Glu	Ala	Gln	Tyr	Ala
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Glu	Glu	Gly	Pro	Gly	Pro	Gly	Ile	Phe	Arg	Ala	Glu	Pro	Gly	Asp	Gln
							20		25				30		

Gln	His	Pro	Ile	Ser	Gln	Ala	Val	Cys	Trp	Arg	Ser	Met	Arg	Arg	Gly
							35		40			45			

Cys	Ala	Val	Leu	Gly	Ala	Leu	Gly	Leu	Leu	Ala	Gly	Ala	Gly	Val	Gly
							50		55			60			

Ser	Trp	Leu	Leu	Val	Leu	Tyr	Leu	Cys	Pro	Ala	Ala	Ser	Gln	Pro	Ile
							65		70			75		80	

Ser	Gly	Thr	Leu	Gln	Asp	Glu	Glu	Ile	Thr	Leu	Ser	Cys	Ser	Glu	Ala
							85		90			95			

Ser	Ala	Glu	Glu	Ala	Leu	Leu	Pro	Ala	Leu	Pro	Lys	Thr	Val	Ser	Phe
							100		105			110			

Arg Ile Asn Ser Glu Asp Phe Leu Leu Glu Ala Gln Val Arg Asp Gln
 115 120 125
 Pro Arg Trp Leu Leu Val Cys His Glu Gly Trp Ser Pro Ala Leu Gly
 130 135 140
 Leu Gln Ile Cys Trp Ser Leu Gly His Leu Arg Leu Thr His His Lys
 145 150 155 160
 Gly Val Asn Leu Thr Asp Ile Lys Leu Asn Ser Ser Gln Glu Phe Ala
 165 170 175
 Gln Leu Ser Pro Arg Leu Gly Gly Phe Leu Glu Glu Ala Trp Gln Pro
 180 185 190
 Arg Asn Asn Cys Thr Ser Gly Gln Val Val Ser Leu Arg Cys Ser Glu
 195 200 205
 Cys Gly Ala Arg Pro Leu Ala Ser Arg Ile Val Gly Gly Gln Ser Val
 210 215 220
 Ala Pro Gly Arg Trp Pro Trp Gln Ala Ser Val Ala Leu Gly Phe Arg
 225 230 235 240
 His Thr Cys Gly Gly Ser Val Leu Ala Pro Arg Trp Val Val Thr Ala
 245 250 255
 Ala His Cys Met His Ser Ala Gln Asn His Asp Tyr Asp Val Ala Leu
 260 265 270
 Leu Arg Leu Gln Thr Ala Leu Asn Phe Ser Asp Thr Val Gly Ala Val
 275 280 285
 Cys Leu Pro Ala Lys Glu Gln His Phe Pro Lys Gly Ser Arg Cys Trp
 290 295 300
 Val Ser Gly Trp Cys His Thr His Pro Ser His Thr Tyr Ser Ser Asp
 305 310 315 320
 Met Leu Gln Asp Thr Val Val Pro Leu Leu Ser Thr Gln Leu Cys Asn
 325 330 335
 Ser Ser Cys Val Tyr Ser Gly Ala Leu Thr Pro Arg Met Leu Cys Ala
 340 345 350
 Gly Tyr Leu Asp Gly Arg Ala Asp Ala Cys Gln Gly Asp Ser Gly Gly
 355 360 365
 Pro Leu Val Cys Pro Asp Gly Asp Thr Trp Arg Leu Val Gly Val Val
 370 375 380
 Ser Trp Gly Arg Gly Cys Ala Glu Pro Asn His Pro Gly Val Tyr Ala
 385 390 395 400
 Lys Val Ala Glu Phe Leu Asp Trp Ile His Asp Thr Ala Gln Asp Ser
 405 410 415

Leu Leu

<210> 30

<211> 1593

<212> PRT

<213> Homo sapiens

<400> 30

Met Pro Cys Ala Gln Arg Ser Trp Leu Ala Asn Leu Ser Val Val Ala
1 5 10 15

Gln Leu Leu Asn Phe Gly Ala Leu Cys Tyr Gly Arg Gln Pro Gln Pro
20 25 30

Gly Pro Val Arg Phe Pro Asp Arg Arg Gln Glu His Phe Ile Lys Gly
35 40 45

Leu Pro Glu Tyr His Val Val Gly Pro Val Arg Val Asp Ala Ser Gly
50 55 60

His Phe Leu Ser Tyr Gly Leu His Tyr Pro Ile Thr Ser Ser Arg Arg
65 70 75 80

Lys Arg Asp Leu Asp Gly Ser Glu Asp Trp Val Tyr Tyr Arg Ile Ser
85 90 95

His Glu Glu Lys Asp Leu Phe Phe Asn Leu Thr Val Asn Gln Gly Phe
100 105 110

Leu Ser Asn Ser Tyr Ile Met Glu Lys Arg Tyr Gly Asn Leu Ser His
115 120 125

Val Lys Met Met Ala Ser Ser Ala Pro Leu Cys His Leu Ser Gly Thr
130 135 140

Val Leu Gln Gln Gly Thr Arg Val Gly Thr Ala Ala Leu Ser Ala Cys
145 150 155 160

His Gly Leu Thr Gly Phe Phe Gln Leu Pro His Gly Asp Phe Phe Ile
165 170 175

Glu Pro Val Lys Lys His Pro Leu Val Glu Gly Gly Tyr His Pro His
180 185 190

Ile Val Tyr Arg Arg Gln Lys Val Pro Glu Thr Lys Glu Pro Thr Cys
195 200 205

Gly Leu Lys Asp Ser Val Asn Ile Ser Gln Lys Gln Glu Leu Trp Arg
210 215 220

Glu Lys Trp Glu Arg His Asn Leu Pro Ser Arg Ser Leu Ser Arg Arg
225 230 235 240

Ser Ile Ser Lys Glu Arg Trp Val Glu Thr Leu Val Val Ala Asp Thr
245 250 255

Lys Met Ile Glu Tyr His Gly Ser Glu Asn Val Glu Ser Tyr Ile Leu
 260 265 270

Thr Ile Met Asn Met Val Thr Gly Leu Phe His Asn Pro Ser Ile Gly
 275 280 285

Asn Ala Ile His Ile Val Val Val Arg Leu Ile Leu Leu Glu Glu Glu
 290 295 300

Glu Gln Gly Leu Lys Ile Val His His Ala Glu Lys Thr Leu Ser Ser
 305 310 315 320

Phe Cys Lys Trp Gln Lys Ser Ile Asn Pro Lys Ser Asp Leu Asn Pro
 325 330 335

Val His His Asp Val Ala Val Leu Leu Thr Arg Lys Asp Ile Cys Ala
 340 345 350

Gly Phe Asn Arg Pro Cys Glu Thr Leu Gly Leu Ser His Leu Ser Gly
 355 360 365

Met Cys Gln Pro His Arg Ser Cys Asn Ile Asn Glu Asp Ser Gly Leu
 370 375 380

Pro Leu Ala Phe Thr Ile Ala His Glu Leu Gly His Ser Phe Gly Ile
 385 390 395 400

Gln His Asp Gly Lys Glu Asn Asp Cys Glu Pro Val Gly Arg His Pro
 405 410 415

Tyr Ile Met Ser Arg Gln Leu Gln Tyr Asp Pro Thr Pro Leu Thr Trp
 420 425 430

Ser Lys Cys Ser Glu Glu Tyr Ile Thr Arg Phe Leu Asp Arg Gly Trp
 435 440 445

Gly Phe Cys Leu Asp Asp Ile Pro Lys Lys Gly Leu Lys Ser Lys
 450 455 460

Val Ile Ala Pro Gly Val Ile Tyr Asp Val His His Gln Cys Gln Leu
 465 470 475 480

Gln Tyr Gly Pro Asn Ala Thr Phe Cys Gln Glu Val Glu Asn Val Cys
 485 490 495

Gln Thr Leu Trp Cys Ser Val Lys Gly Phe Cys Arg Ser Lys Leu Asp
 500 505 510

Ala Ala Ala Asp Gly Thr Gln Cys Gly Glu Lys Lys Trp Cys Met Ala
 515 520 525

Gly Lys Cys Ile Thr Val Gly Lys Lys Pro Glu Ser Ile Pro Gly Gly
 530 535 540

Trp Gly Arg Trp Ser Pro Trp Ser His Cys Ser Arg Thr Cys Gly Ala
 545 550 555 560

Gly Val Gln Ser Ala Glu Arg Leu Cys Asn Asn Pro Glu Pro Lys Phe
 565 570 575

 Gly Gly Lys Tyr Cys Thr Gly Glu Arg Lys Arg Tyr Arg Leu Cys Asn
 580 585 590

 Val His Pro Cys Arg Ser Glu Ala Pro Thr Phe Arg Gln Met Gln Cys
 595 600 605

 Ser Glu Phe Asp Thr Val Pro Tyr Lys Asn Glu Leu Tyr His Trp Phe
 610 615 620

 Pro Ile Phe Asn Pro Ala His Pro Cys Glu Leu Tyr Cys Arg Pro Ile
 625 630 635 640

 Asp Gly Gln Phe Ser Glu Lys Met Leu Asp Ala Val Ile Asp Gly Thr
 645 650 655

 Pro Cys Phe Glu Gly Asn Ser Arg Asn Val Cys Ile Asn Gly Ile
 660 665 670

 Cys Lys Met Val Gly Cys Asp Tyr Glu Ile Asp Ser Asn Ala Thr Glu
 675 680 685

 Asp Arg Cys Gly Val Cys Leu Gly Asp Gly Ser Ser Cys Gln Thr Val
 690 695 700

 Arg Lys Met Phe Lys Gln Lys Glu Gly Ser Gly Tyr Val Asp Ile Gly
 705 710 715 720

 Leu Ile Pro Lys Gly Ala Arg Asp Ile Arg Val Met Glu Ile Glu Gly
 725 730 735

 Ala Gly Asn Phe Leu Ala Ile Arg Ser Glu Asp Pro Glu Lys Tyr Tyr
 740 745 750

 Leu Asn Gly Gly Phe Ile Ile Gln Trp Asn Gly Asn Tyr Lys Leu Ala
 755 760 765

 Gly Thr Val Phe Gln Tyr Asp Arg Lys Gly Asp Leu Glu Lys Leu Met
 770 775 780

 Ala Thr Gly Pro Thr Asn Glu Ser Val Trp Ile Gln Leu Leu Phe Gln
 785 790 795 800

 Val Thr Asn Pro Gly Ile Lys Tyr Glu Tyr Thr Ile Gln Lys Asp Gly
 805 810 815

 Leu Asp Asn Asp Val Glu Gln Met Tyr Phe Trp Gln Tyr Gly His Trp
 820 825 830

 Thr Glu Cys Ser Val Thr Cys Gly Thr Gly Ile Arg Arg Gln Thr Ala
 835 840 845

 His Cys Ile Lys Lys Gly Arg Gly Met Val Lys Ala Thr Phe Cys Asp
 850 855 860

Pro Glu Thr Gln Pro Asn Gly Arg Gln Lys Lys Cys His Glu Lys Ala
 865 870 875 880
 Cys Pro Pro Arg Trp Trp Ala Gly Glu Trp Glu Ala Cys Ser Ala Thr
 885 890 895
 Cys Gly Pro His Gly Glu Lys Lys Arg Thr Val Leu Cys Ile Gln Thr
 900 905 910
 Met Val Ser Asp Glu Gln Ala Leu Pro Pro Thr Asp Cys Gln His Leu
 915 920 925
 Leu Lys Pro Lys Thr Leu Leu Ser Cys Asn Arg Asp Ile Leu Cys Pro
 930 935 940
 Ser Asp Trp Thr Val Gly Asn Trp Ser Glu Cys Ser Val Ser Cys Gly
 945 950 955 960
 Gly Gly Val Arg Ile Arg Ser Val Thr Cys Ala Lys Asn His Asp Glu
 965 970 975
 Pro Cys Asp Val Thr Arg Lys Pro Asn Ser Arg Ala Leu Cys Gly Leu
 980 985 990
 Gln Gln Cys Pro Ser Ser Arg Arg Val Leu Lys Pro Asn Lys Gly Thr
 995 1000 1005
 Ile Ser Asn Gly Lys Asn Pro Pro Thr Leu Lys Pro Val Pro Pro Pro
 1010 1015 1020
 Thr Ser Arg Pro Arg Met Leu Thr Thr Pro Thr Gly Pro Glu Ser Met
 1025 1030 1035 1040
 Ser Thr Ser Thr Pro Ala Ile Ser Ser Pro Ser Pro Thr Thr Ala Ser
 1045 1050 1055
 Lys Glu Gly Asp Leu Gly Gly Lys Gln Trp Gln Asp Ser Ser Thr Gln
 1060 1065 1070
 Pro Glu Leu Ser Ser Arg Tyr Leu Ile Ser Thr Gly Ser Thr Ser Gln
 1075 1080 1085
 Pro Ile Leu Thr Ser Gln Ser Leu Ser Ile Gln Pro Ser Glu Glu Asn
 1090 1095 1100
 Val Ser Ser Ser Asp Thr Gly Pro Thr Ser Glu Gly Leu Val Ala
 1105 1110 1115 1120
 Thr Thr Thr Ser Gly Ser Gly Leu Ser Ser Ser Arg Asn Pro Ile Thr
 1125 1130 1135
 Trp Pro Val Thr Pro Phe Tyr Asn Thr Leu Thr Lys Gly Pro Glu Met
 1140 1145 1150
 Glu Ile His Ser Gly Ser Gly Glu Glu Arg Glu Gln Pro Glu Asp Lys
 1155 1160 1165

Asp Glu Ser Asn Pro Val Ile Trp Thr Lys Ile Arg Val Pro Gly Asn
 1170 1175 1180

Asp Ala Pro Val Glu Ser Thr Glu Met Pro Leu Ala Pro Pro Leu Thr
 1185 1190 1195 1200

Pro Asp Leu Ser Arg Glu Ser Trp Trp Pro Pro Phe Ser Thr Val Met
 1205 1210 1215

Glu Gly Leu Leu Pro Ser Gln Arg Pro Thr Thr Ser Glu Thr Gly Thr
 1220 1225 1230

Pro Arg Val Glu Gly Met Val Thr Glu Lys Pro Ala Asn Thr Leu Leu
 1235 1240 1245

Pro Leu Gly Gly Asp His Gln Pro Glu Pro Ser Gly Lys Thr Ala Asn
 1250 1255 1260

Arg Asn His Leu Lys Leu Pro Asn Asn Met Asn Gln Thr Lys Ser Ser
 1265 1270 1275 1280

Glu Pro Val Leu Thr Glu Glu Asp Ala Thr Ser Leu Ile Thr Glu Gly
 1285 1290 1295

Phe Leu Leu Asn Ala Ser Asn Tyr Lys Gln Leu Thr Asn Gly His Gly
 1300 1305 1310

Ser Ala His Trp Ile Val Gly Asn Trp Ser Glu Cys Ser Thr Thr Cys
 1315 1320 1325

Gly Leu Gly Ala Tyr Trp Lys Arg Val Glu Cys Thr Thr Gln Met Asp
 1330 1335 1340

Ser Asp Cys Ala Ala Ile Gln Arg Pro Asp Pro Ala Lys Arg Cys His
 1345 1350 1355 1360

Leu Arg Pro Cys Ala Gly Trp Lys Val Gly Asn Trp Ser Lys Cys Ser
 1365 1370 1375

Arg Asn Cys Ser Gly Gly Phe Lys Ile Arg Glu Ile Gln Cys Val Asp
 1380 1385 1390

Ser Arg Asp His Arg Asn Leu Arg Pro Phe His Cys Gln Phe Leu Ala
 1395 1400 1405

Gly Ile Pro Pro Pro Leu Ser Met Ser Cys Asn Pro Glu Pro Cys Glu
 1410 1415 1420

Ala Trp Gln Val Glu Pro Trp Ser Gln Cys Ser Arg Ser Cys Gly Gly
 1425 1430 1435 1440

Gly Val Gln Glu Arg Gly Val Phe Cys Pro Gly Gly Leu Cys Asp Trp
 1445 1450 1455

Thr Lys Arg Pro Thr Ser Thr Met Ser Cys Asn Glu His Leu Cys Cys
 1460 1465 1470

His Trp Ala Thr Gly Asn Trp Asp Leu Cys Ser Thr Ser Cys Gly Gly
1475 1480 1485

Gly Phe Gln Lys Arg Ile Val Gln Cys Val Pro Ser Glu Gly Asn Lys
1490 1495 1500

Thr Glu Asp Gln Asp Gln Cys Leu Cys Asp His Lys Pro Arg Pro Pro
1505 1510 1515 1520

Glu Phe Lys Lys Cys Asn Gln Gln Ala Cys Lys Lys Ser Ala Asp Leu
1525 1530 1535

Leu Cys Thr Lys Asp Lys Leu Ser Ala Ser Phe Cys Gln Thr Leu Lys
1540 1545 1550

Ala Met Lys Lys Cys Ser Val Pro Thr Val Arg Ala Glu Cys Cys Phe
1555 1560 1565

Ser Cys Pro Gln Thr His Ile Thr His Thr Gln Arg Gln Arg Arg Gln
1570 1575 1580

Arg Leu Leu Gln Lys Ser Lys Glu Leu
1585 1590

<210> 31

<211> 1077

<212> PRT

<213> Homo sapiens

<400> 31

Arg Ser Gln Asp Glu Phe Leu Ser Ser Leu Glu Ser Tyr Glu Ile Ala
1 5 10 15

Phe Pro Thr Arg Val Asp His Asn Gly Ala Leu Leu Ala Phe Ser Pro
20 25 30

Pro Pro Pro Arg Arg Gln Arg Arg Gly Thr Gly Ala Thr Ala Glu Ser
35 40 45

Arg Leu Phe Tyr Lys Val Ala Ser Pro Ser Thr His Phe Leu Leu Asn
50 55 60

Leu Thr Arg Ser Ser Arg Leu Leu Ala Gly His Val Ser Val Glu Tyr
65 70 75 80

Trp Thr Arg Glu Gly Leu Ala Trp Gln Arg Ala Ala Arg Pro His Cys
85 90 95

Leu Tyr Ala Gly His Leu Gln Gly Gln Ala Ser Ser Ser His Val Ala
100 105 110

Ile Ser Thr Cys Gly Gly Leu His Gly Leu Ile Val Ala Asp Glu Glu
115 120 125

Glu Tyr Leu Ile Glu Pro Leu His Gly Gly Pro Lys Gly Ser Arg Ser

130	135	140
Pro	Glu	Glu
Ser	Gly	Pro
145	150	155
His	Val	Val
Val	Tyr	Lys
Arg	Ser	Ser
Leu	Arg	
160		
His Pro His Leu Asp Thr Ala Cys Gly Val Arg Asp Glu Lys Pro Trp		
165	170	175
Lys	Gly	Arg
Pro	Trp	Trp
Trp	Leu	Arg
180	185	190
Thr	Leu	Lys
Pro	Pro	Pro
Pro	Ala	Arg
Leu	Gly	
Asn	Glu	
195	200	205
Thr	Gly	
Gln	Pro	
Leu	Gly	
Lys	Arg	
190		
Val	Ser	Arg
Glu	Arg	Tyr
210	215	220
Val	Glu	Thr
Leu	Val	Val
Val	Ala	Asp
Ala	Lys	
220		
Met	Val	Ala
Tyr	His	Gly
225	230	235
Arg	Arg	Asp
Asp	Val	Glu
Val	Gln	Tyr
Glu	Tyr	Val
Leu	Ala	
235		
Ile	Met	Asn
Ile	Val	Ala
Lys	Leu	Phe
245	250	255
Gln	Asp	Ser
Ser	Leu	Gly
Leu	Gly	Ser
255		
Thr	Val	Asn
Ile	Leu	Val
Thr	Arg	Leu
260	265	270
Ile	Leu	Leu
Thr	Glu	Asp
Asp		Gln
270		
Pro	Thr	Leu
Glu	Ile	Thr
275	280	285
His	His	Ala
Ala	Gly	Lys
Gly	Ser	Leu
285		
Cys	Lys	Trp
290	295	300
Gln	Lys	Ser
Ile	Val	Asn
His	Ser	Gly
295		
His	Gly	Asn
Asn	Ala	
Ile	Pro	Glu
305	310	315
Asn	Val	Gly
Asp	Ala	Asn
Thr	Asp	His
315		
Thr	Ala	Val
Asp	Leu	Leu
320		
Ile	Tyr	Asp
Arg	Ile	Cys
Tyr	Ile	Tyr
325	330	335
Lys	Asn	Pro
Asn	Pro	Cys
Gly	Gly	Gly
335		
Thr	Leu	Arg
Leu	Arg	Ser
340	345	350
Val	Gly	Cys
Ala	Pro	Ser
345		
Gly	Asp	Ile
Asn	Ile	Gly
350	355	365
Gly	Leu	Pro
355		
Gly	Gly	Gln
360		
Asp	Ala	Asn
365		
Asn	Asp	Gly
370	375	380
Thr	Phe	Gly
Gly	Met	Asn
375		
His	Asn	His
Asp	Asp	Gly
380		
Val	Gly	Val
385		
Gly	Asn	Ser
390		
Asn	Ser	Cys
395		
His	Asn	Gly
Ala	Ala	His
395		
Arg	Thr	Ile
Ala	Asn	Asp
400		
Arg	Pro	Phe
Tyr	Val	Trp
405	410	415
Ser	Ser	Ser
Cys	Asn	Arg
Asn	Arg	Asp
410		
Asp	Tyr	Ile
415		
Pro	Val	Thr
420	425	430
Asp	Leu	Asn
Arg	Gly	Asn
425		
Phe	Leu	Asn
430		
Asp	Ser	Arg
435		
Phe	Val	Tyr
440		
Asp	Tyr	Pro
445		
Val	Pro	Gly
450		
Ala	Pro	Gln
455		
Gly	Gln	Ala
460		
Asp	Tyr	Tyr
465		
Asp		

435

440

445

Ala Asp Glu Gln Cys Arg Phe Gln His Gly Val Lys Ser Arg Gln Cys
 450 455 460

Lys Tyr Gly Glu Val Cys Ser Glu Leu Trp Cys Leu Ser Lys Ser Asn
 465 470 475 480

Arg Cys Ile Thr Asn Ser Ile Pro Ala Ala Glu Gly Thr Leu Cys Gln
 485 490 495

Thr His Thr Ile Asp Lys Gly Trp Cys Tyr Lys Arg Val Cys Val Pro
 500 505 510

Phe Gly Ser Arg Pro Glu Gly Val Asp Gly Ala Trp Gly Pro Trp Thr
 515 520 525

Pro Trp Gly Asp Cys Ser Arg Thr Cys Gly Gly Val Ser Ser Ser
 530 535 540

Ser Arg His Cys Asp Ser Pro Arg Pro Thr Ile Gly Gly Lys Tyr Cys
 545 550 555 560

Leu Gly Glu Arg Arg Arg His Arg Ser Cys Asn Thr Asp Asp Cys Pro
 565 570 575

Pro Gly Ser Gln Asp Phe Arg Glu Val Gln Cys Ser Glu Phe Asp Ser
 580 585 590

Ile Pro Phe Arg Gly Lys Phe Tyr Lys Trp Lys Thr Tyr Arg Gly Gly
 595 600 605

Gly Val Lys Ala Cys Ser Leu Thr Ser Leu Ala Glu Gly Phe Asn Phe
 610 615 620

Tyr Thr Glu Arg Ala Ala Val Val Asp Gly Thr Pro Cys Arg Pro
 625 630 635 640

Asp Thr Val Asp Ile Cys Val Ser Gly Glu Cys Lys His Val Gly Cys
 645 650 655

Asp Arg Val Leu Gly Ser Asp Leu Arg Glu Asp Lys Cys Arg Val Cys
 660 665 670

Gly Gly Asp Gly Ser Ala Cys Glu Thr Ile Glu Gly Val Phe Ser Pro
 675 680 685

Ala Ser Pro Gly Ala Gly Tyr Glu Asp Val Val Trp Ile Pro Lys Gly
 690 695 700

Ser Val His Ile Phe Ile Gln Asp Leu Asn Leu Ser Leu Ser His Leu
 705 710 715 720

Ala Leu Lys Gly Asp Gln Glu Ser Leu Leu Leu Glu Gly Leu Pro Gly
 725 730 735

Thr Pro Gln Pro His Arg Leu Pro Leu Ala Gly Thr Thr Phe Gln Leu

740	745	750
Arg Gln Gly Pro Asp Gln Val Gln Ser Leu Glu Ala Leu Gly Pro Ile		
755	760	765
Asn Ala Ser Leu Ile Val Met Val Leu Ala Arg Thr Glu Leu Pro Ala		
770	775	780
Leu Arg Tyr Arg Phe Asn Ala Pro Ile Ala Arg Asp Ser Leu Pro Pro		
785	790	795
Tyr Ser Trp His Tyr Ala Pro Trp Thr Lys Cys Ser Ala Gln Cys Ala		
805	810	815
Gly Gly Ser Gln Val Gln Ala Val Glu Cys Arg Asn Gln Leu Asp Ser		
820	825	830
Ser Ala Val Ala Pro His Tyr Cys Ser Ala His Ser Lys Leu Pro Lys		
835	840	845
Arg Gln Arg Ala Cys Asn Thr Glu Pro Cys Pro Pro Asp Trp Val Val		
850	855	860
Gly Asn Trp Ser Leu Cys Ser Arg Ser Cys Asp Ala Gly Val Arg Ser		
865	870	875
Arg Ser Val Val Cys Gln Arg Arg Val Ser Ala Ala Glu Glu Lys Ala		
885	890	895
Leu Asp Asp Ser Ala Cys Pro Gln Pro Arg Pro Pro Val Leu Glu Ala		
900	905	910
Cys His Gly Pro Thr Cys Pro Pro Glu Trp Ala Ala Leu Asp Trp Ser		
915	920	925
Glu Cys Thr Pro Ser Cys Gly Pro Gly Leu Arg His Arg Val Val Leu		
930	935	940
Cys Lys Ser Ala Asp His Arg Ala Thr Leu Pro Pro Ala His Cys Ser		
945	950	955
Pro Ala Ala Lys Pro Pro Ala Thr Met Arg Cys Asn Leu Arg Arg Cys		
965	970	975
Pro Pro Ala Arg Trp Val Ala Gly Glu Trp Gly Glu Cys Ser Ala Gln		
980	985	990
Cys Gly Val Gly Gln Arg Gln Arg Ser Val Arg Cys Thr Ser His Thr		
995	1000	1005
Gly Gln Ala Ser His Glu Cys Thr Glu Ala Leu Arg Pro Pro Thr Thr		
1010	1015	1020
Gln Gln Cys Glu Ala Lys Cys Asp Ser Pro Thr Pro Gly Asp Gly Pro		
1025	1030	1035
Glu Glu Cys Lys Asp Val Asn Lys Val Ala Tyr Cys Pro Leu Val Leu		

1045	1050	1055
Lys Phe Gln Phe Cys Ser Arg Ala Tyr Phe Arg Gln Met Cys Cys Lys 1060	1065	1070
Thr Cys Gln Gly His 1075		
<210> 32		
<211> 997		
<212> PRT		
<213> Homo sapiens		
<400> 32		
Met Pro Gly Gly Pro Ser Pro Arg Ser Pro Ala Pro Leu Leu Arg Pro 1	5	10
Leu Leu Leu Leu Cys Ala Leu Ala Pro Gly Ala Pro Gly Pro Ala 20	25	30
Pro Gly Arg Ala Thr Glu Gly Arg Ala Ala Leu Asp Ile Val His Pro 35	40	45
Val Arg Val Asp Ala Gly Gly Ser Phe Leu Ser Tyr Glu Leu Trp Pro 50	55	60
Arg Ala Leu Arg Lys Arg Asp Val Ser Val Arg Arg Asp Ala Pro Ala 65	70	75
Phe Tyr Glu Leu Gln Tyr Arg Gly Arg Glu Leu Arg Phe Asn Leu Thr 85	90	95
Ala Asn Gln His Leu Leu Ala Pro Gly Phe Val Ser Glu Thr Arg Arg 100	105	110
Arg Gly Gly Leu Gly Arg Ala His Ile Arg Ala His Thr Pro Ala Cys 115	120	125
His Leu Leu Gly Glu Val Gln Asp Pro Glu Leu Glu Gly Gly Leu Ala 130	135	140
Ala Ile Ser Ala Cys Asp Gly Leu Lys Gly Val Phe Gln Leu Ser Asn 145	150	155
Glu Asp Tyr Phe Ile Glu Pro Leu Asp Ser Ala Pro Ala Arg Pro Gly 165	170	175
His Ala Gln Pro His Val Val Tyr Lys Arg Gln Ala Pro Glu Arg Leu 180	185	190
Ala Gln Arg Gly Asp Ser Ser Ala Pro Ser Thr Cys Gly Val Gln Val 195	200	205
Tyr Pro Glu Leu Glu Ser Arg Arg Glu Arg Trp Glu Gln Arg Gln Gln 210	215	220

Trp Arg Arg Pro Arg Leu Arg Arg Leu His Gln Arg Ser Val Ser Lys
 225 230 235 240
 Glu Lys Trp Val Glu Thr Leu Val Val Ala Asp Ala Lys Met Val Glu
 245 250 255
 Tyr His Gly Gln Pro Gln Val Glu Ser Tyr Val Leu Thr Ile Met Asn
 260 265 270
 Met Val Ala Gly Leu Phe His Asp Pro Ser Ile Gly Asn Pro Ile His
 275 280 285
 Ile Thr Ile Val Arg Leu Val Leu Leu Glu Asp Glu Glu Glu Asp Leu
 290 295 300
 Lys Ile Thr His His Ala Asp Asn Thr Leu Lys Ser Phe Cys Lys Trp
 305 310 315 320
 Gln Lys Ser Ile Asn Met Lys Gly Asp Ala His Pro Leu His His Asp
 325 330 335
 Thr Ala Ile Leu Leu Thr Arg Lys Asp Leu Cys Ala Ala Met Asn Arg
 340 345 350
 Pro Cys Glu Thr Leu Gly Leu Ser His Val Ala Gly Met Cys Gln Pro
 355 360 365
 His Arg Ser Cys Ser Ile Asn Glu Asp Thr Gly Leu Pro Leu Ala Phe
 370 375 380
 Thr Val Ala His Glu Leu Gly His Ser Phe Gly Ile Gln His Asp Gly
 385 390 395 400
 Ser Gly Asn Asp Cys Glu Pro Val Gly Lys Arg Pro Phe Ile Met Ser
 405 410 415
 Pro Gln Leu Leu Tyr Asp Ala Ala Pro Leu Thr Trp Ser Arg Cys Ser
 420 425 430
 Arg Gln Tyr Ile Thr Arg Phe Leu Asp Arg Gly Trp Gly Leu Cys Leu
 435 440 445
 Asp Asp Pro Pro Ala Lys Asp Ile Ile Asp Phe Pro Ser Val Pro Pro
 450 455 460
 Gly Val Leu Tyr Asp Val Ser His Gln Cys Arg Leu Gln Tyr Gly Ala
 465 470 475 480
 Tyr Ser Ala Phe Cys Glu Asp Met Asp Asn Val Cys His Thr Leu Trp
 485 490 495
 Cys Ser Val Gly Thr Thr Cys His Ser Lys Leu Asp Ala Ala Val Asp
 500 505 510
 Gly Thr Arg Cys Gly Glu Asn Lys Trp Cys Leu Ser Gly Glu Cys Val
 515 520 525

Pro Val Gly Phe Arg Pro Glu Ala Val Asp Gly Gly Trp Ser Gly Trp
 530 535 540
 Ser Ala Trp Ser Ile Cys Ser Arg Ser Cys Gly Met Gly Val Gln Ser
 545 550 555 560
 Ala Glu Arg Gln Cys Thr Gln Pro Thr Pro Lys Tyr Lys Gly Arg Tyr
 565 570 575
 Cys Val Gly Glu Arg Lys Arg Phe Arg Leu Cys Asn Leu Gln Ala Cys
 580 585 590
 Pro Ala Gly Arg Pro Ser Phe Arg His Val Gln Cys Ser His Phe Asp
 595 600 605
 Ala Met Leu Tyr Lys Gly Gln Leu His Thr Trp Val Pro Val Val Asn
 610 615 620
 Asp Val Asn Pro Cys Glu Leu His Cys Arg Pro Ala Asn Glu Tyr Phe
 625 630 635 640
 Ala Lys Lys Leu Arg Asp Ala Val Val Asp Gly Thr Pro Cys Tyr Gln
 645 650 655
 Val Arg Ala Ser Arg Asp Leu Cys Ile Asn Gly Ile Cys Lys Asn Val
 660 665 670
 Gly Cys Asp Phe Glu Ile Asp Ser Gly Ala Met Glu Asp Arg Cys Gly
 675 680 685
 Val Cys His Gly Asn Gly Ser Thr Cys His Thr Val Ser Gly Thr Phe
 690 695 700
 Glu Glu Ala Glu Gly Leu Gly Tyr Val Asp Val Gly Leu Ile Pro Ala
 705 710 715 720
 Gly Ala Arg Glu Ile Arg Ile Gln Glu Val Ala Glu Ala Ala Asn Phe
 725 730 735
 Leu Ala Leu Arg Ser Glu Asp Pro Glu Lys Tyr Phe Leu Asn Gly Gly
 740 745 750
 Trp Thr Ile Gln Trp Asn Gly Asp Tyr Gln Val Ala Gly Thr Thr Phe
 755 760 765
 Thr Tyr Ala Arg Arg Gly Asn Trp Glu Asn Leu Thr Ser Pro Gly Pro
 770 775 780
 Thr Lys Glu Pro Val Trp Ile Gln Val Pro Ala Ser Arg Gly Pro Gly
 785 790 795 800
 Gly Gly Ser Arg Gly Gly Val Pro Arg Pro Ser Thr Leu His Gly Arg
 805 810 815
 Ser Arg Pro Gly Gly Val Ser Pro Gly Ser Val Thr Glu Pro Gly Ser
 820 825 830

Glu	Pro	Gly	Pro	Pro	Ala	Ala	Ser	Thr	Ser	Val	Ser	Pro	Ser	Leu	
835														845	
Lys	Trp	Pro	Asn	Leu	Val	Ala	Ala	Val	His	Arg	Gly	Gly	Trp	Gly	Gln
850														860	
Ala	Pro	Leu	Gly	Leu	Gly	Gly	Trp	Arg	Arg	His	Leu	Val	Leu	Met	Gly
865														880	
Pro	Arg	Leu	Pro	Thr	Gln	Leu	Leu	Phe	Gln	Glu	Ser	Asn	Pro	Gly	Val
	885													895	
His	Tyr	Glu	Tyr	Thr	Ile	His	Arg	Glu	Ala	Gly	Gly	His	Asp	Glu	Val
		900												910	
Pro	Pro	Pro	Val	Phe	Ser	Trp	His	Tyr	Gly	Pro	Trp	Thr	Lys	Cys	Thr
	915													925	
Val	Thr	Cys	Gly	Arg	Gly	Glu	Lys	Trp	Gly	Arg	His	Ser	Pro	Thr	Cys
	930													940	
Arg	Gly	Leu	Val	Ser	Gly	Gln	Gly	His	Trp	Leu	Gln	Leu	Pro	Ala	His
	945													960	
Cys	Trp	Ala	Thr	Thr	Gly	Leu	Glu	Val	Cys	Phe	Ser	Glu	Pro	Gln	Phe
	965													975	
Ser	Ile	Cys	Glu	Met	Arg	Leu	Ala	Ile	Ala	Leu	Cys	Pro	Arg	Pro	Ala
	980													990	
Gly	Arg	Val	His	Gly											
	995														

<210> 33

<211> 854

<212> PRT

<213> Homo sapiens

<400> 33

Met	Met	Val	Ala	Tyr	His	Gly	Arg	Arg	Asp	Val	Glu	Gln	Tyr	Val	Leu
1														15	

Ala	Ile	Met	Asn	Ile	Val	Ala	Lys	Leu	Phe	Gln	Asp	Ser	Ser	Leu	Gly
														30	

Ser	Thr	Val	Asn	Ile	Leu	Val	Thr	Arg	Leu	Ile	Leu	Leu	Thr	Glu	Asp
														45	

Gln	Pro	Thr	Leu	Glu	Ile	Thr	His	His	Ala	Gly	Lys	Ser	Leu	Asp	Ser
														50	

Phe	Cys	Lys	Trp	Gln	Lys	Ser	Ile	Val	Asn	His	Ser	Gly	His	Gly	Asn
														60	

Ala	Ile	Pro	Glu	Asn	Gly	Val	Ala	Asn	His	Asp	Thr	Ala	Val	Leu	Ile
														95	

Thr Arg Tyr Asp Ile Cys Ile Tyr Lys Asn Lys Pro Cys Gly Thr Leu
 100 105 110
 Gly Leu Ala Pro Val Gly Gly Met Cys Glu Arg Glu Arg Ser Cys Ser
 115 120 125
 Val Asn Glu Asp Ile Gly Leu Ala Thr Ala Phe Thr Ile Ala His Glu
 130 135 140
 Ile Gly His Thr Phe Gly Met Asn His Asp Gly Val Gly Asn Ser Cys
 145 150 155 160
 Gly Ala Arg Gly Gln Asp Pro Ala Lys Leu Met Ala Ala His Ile Thr
 165 170 175
 Met Lys Thr Asn Pro Phe Val Trp Ser Ser Cys Ser Arg Asp Tyr Ile
 180 185 190
 Thr Ser Phe Leu Asp Ser Gly Leu Gly Leu Cys Leu Asn Asn Arg Pro
 195 200 205
 Pro Arg Gln Asp Phe Val Tyr Pro Thr Val Ala Pro Gly Gln Ala Tyr
 210 215 220
 Asp Ala Asp Glu Gln Cys Arg Phe Gln His Gly Val Lys Ser Arg Gln
 225 230 235 240
 Cys Lys Tyr Gly Glu Val Cys Ser Glu Leu Trp Cys Leu Ser Lys Ser
 245 250 255
 Asn Arg Cys Ile Thr Asn Ser Ile Pro Ala Ala Glu Gly Thr Leu Cys
 260 265 270
 Gln Thr His Thr Ile Asp Lys Gly Trp Cys Tyr Lys Arg Val Cys Val
 275 280 285
 Pro Phe Gly Ser Arg Pro Glu Gly Val Asp Gly Ala Trp Gly Pro Trp
 290 295 300
 Thr Pro Trp Gly Asp Cys Ser Arg Thr Cys Gly Gly Val Ser Ser
 305 310 315 320
 Ser Ser Arg His Cys Asp Ser Pro Arg Pro Thr Ile Gly Gly Lys Tyr
 325 330 335
 Cys Leu Gly Glu Arg Arg His Arg Ser Cys Asn Thr Asp Asp Cys
 340 345 350
 Pro Pro Gly Ser Gln Asp Phe Arg Glu Val Gln Cys Ser Glu Phe Asp
 355 360 365
 Ser Ile Pro Phe Arg Gly Lys Phe Tyr Lys Trp Lys Thr Tyr Arg Gly
 370 375 380
 Gly Gly Val Lys Ala Cys Ser Leu Thr Cys Leu Ala Glu Gly Phe Asn
 385 390 395 400

Phe Tyr Thr Glu Arg Ala Ala Ala Val Val Asp Gly Thr Pro Cys Arg
 405 410 415
 Pro Asp Thr Val Asp Ile Cys Val Ser Gly Glu Cys Lys His Val Gly
 420 425 430
 Cys Asp Arg Val Leu Gly Ser Asp Leu Arg Glu Asp Lys Cys Arg Val
 435 440 445
 Cys Gly Gly Asp Gly Ser Ala Cys Glu Thr Ile Glu Gly Val Phe Ser
 450 455 460
 Pro Ala Ser Pro Gly Ala Gly Tyr Glu Asp Val Val Trp Ile Pro Lys
 465 470 475 480
 Gly Ser Val His Ile Phe Ile Gln Asp Leu Asn Leu Ser Leu Ser His
 485 490 495
 Leu Ala Leu Lys Gly Asp Gln Glu Ser Leu Leu Leu Glu Gly Leu Pro
 500 505 510
 Gly Thr Pro Gln Pro His Arg Leu Pro Leu Ala Gly Thr Thr Phe Gln
 515 520 525
 Leu Arg Gln Gly Pro Asp Gln Val Gln Ser Leu Glu Ala Leu Gly Pro
 530 535 540
 Ile Asn Ala Ser Leu Ile Val Met Val Leu Ala Arg Thr Glu Leu Pro
 545 550 555 560
 Ala Leu Arg Tyr Arg Phe Asn Ala Pro Ile Ala Arg Asp Ser Leu Pro
 565 570 575
 Pro Tyr Ser Trp His Tyr Ala Pro Trp Thr Lys Cys Ser Ala Gln Cys
 580 585 590
 Ala Gly Gly Ser Gln Val Gln Ala Val Glu Cys Arg Asn Gln Leu Asp
 595 600 605
 Ser Ser Ala Val Ala Pro His Tyr Cys Ser Ala His Ser Lys Leu Pro
 610 615 620
 Lys Arg Gln Arg Ala Cys Asn Thr Glu Pro Cys Pro Pro Asp Trp Val
 625 630 635 640
 Val Gly Asn Trp Ser Leu Cys Ser Arg Ser Cys Asp Ala Gly Val Arg
 645 650 655
 Ser Arg Ser Val Val Cys Gln Arg Arg Val Ser Ala Ala Glu Glu Lys
 660 665 670
 Ala Leu Asp Asp Ser Ala Cys Pro Gln Pro Arg Pro Pro Val Leu Glu
 675 680 685
 Ala Cys His Gly Pro Thr Cys Pro Pro Glu Trp Ala Ala Leu Asp Trp
 690 695 700

Ser Glu Cys Thr Pro Ser Cys Gly Pro Gly Leu Arg His Arg Val Val
 705 710 715 720

 Leu Cys Lys Ser Ala Asp His Arg Ala Thr Leu Pro Pro Ala His Cys
 725 730 735

 Ser Pro Ala Ala Lys Pro Pro Ala Thr Met Arg Cys Asn Leu Arg Arg
 740 745 750

 Cys Pro Pro Ala Arg Trp Val Ala Gly Glu Trp Gly Glu Cys Ser Ala
 755 760 765

 Gln Cys Gly Val Gly Gln Arg Gln Arg Ser Val Arg Cys Thr Ser His
 770 775 780

 Thr Gly Gln Ala Ser His Glu Cys Thr Glu Ala Leu Arg Pro Pro Thr
 785 790 795 800

 Thr Gln Gln Cys Glu Ala Lys Cys Asp Ser Pro Thr Pro Gly Asp Gly
 805 810 815

 Pro Glu Glu Cys Lys Asp Val Asn Lys Val Ala Tyr Cys Pro Leu Val
 820 825 830

 Leu Lys Phe Gln Phe Cys Ser Arg Ala Tyr Phe Arg Gln Met Cys Cys
 835 840 845

 Lys Thr Cys His Gly His
 850

<210> 34
 <211> 860
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT
 <222> (450)
 <223> Wherein Xaa is any amino acid.

<400> 34
 Met Glu Ile Leu Trp Lys Thr Leu Thr Trp Ile Leu Ser Leu Ile Met
 1 5 10 15

Ala Ser Ser Glu Phe His Ser Asp His Arg Leu Ser Tyr Ser Ser Gln
 20 25 30

Glu Glu Phe Leu Thr Tyr Leu Glu His Tyr Gln Leu Thr Ile Pro Ile
 35 40 45

Arg Val Asp Gln Asn Gly Ala Phe Leu Ser Phe Thr Val Lys Asn Asp
 50 55 60

Lys His Ser Arg Arg Arg Ser Met Asp Pro Ile Asp Pro Gln Gln
 65 70 75 80

Ala Val Ser Lys Leu Phe Phe Lys Leu Ser Ala Tyr Gly Lys His Phe
 85 90 95

 His Leu Asn Leu Thr Leu Asn Thr Asp Phe Val Ser Lys His Phe Thr
 100 105 110

 Val Glu Tyr Trp Gly Lys Asp Gly Pro Gln Trp Lys His Asp Phe Leu
 115 120 125

 Asp Asn Cys His Tyr Thr Gly Tyr Leu Gln Asp Gln Arg Ser Thr Thr
 130 135 140

 Lys Val Ala Leu Ser Asn Cys Val Gly Leu His Gly Val Ile Ala Thr
 145 150 155 160

 Glu Asp Glu Glu Tyr Phe Ile Glu Pro Leu Lys Asn Thr Thr Glu Asp
 165 170 175

 Ser Lys His Phe Ser Tyr Glu Asn Gly His Pro His Val Ile Tyr Lys
 180 185 190

 Lys Ser Ala Leu Gln Gln Arg His Leu Tyr Asp His Ser His Cys Gly
 195 200 205

 Val Ser Asp Phe Thr Arg Ser Gly Lys Pro Trp Trp Leu Asn Asp Thr
 210 215 220

 Ser Thr Val Ser Tyr Ser Leu Pro Ile Asn Asn Thr His Ile His His
 225 230 235 240

 Arg Gln Lys Arg Ser Val Ser Ile Glu Arg Phe Val Glu Thr Leu Val
 245 250 255

 Val Ala Asp Lys Met Met Val Gly Tyr His Gly Arg Lys Asp Ile Glu
 260 265 270

 His Tyr Ile Leu Ser Val Met Asn Ile Val Ala Lys Leu Tyr Arg Asp
 275 280 285

 Ser Ser Leu Gly Asn Val Val Asn Ile Ile Val Ala Arg Leu Ile Val
 290 295 300

 Leu Thr Glu Asp Gln Pro Asn Leu Glu Ile Asn His His Ala Asp Lys
 305 310 315 320

 Ser Leu Asp Ser Phe Cys Lys Trp Gln Lys Ser Ile Leu Ser His Gln
 325 330 335

 Ser Asp Gly Asn Thr Ile Pro Glu Asn Gly Ile Ala His His Asp Asn
 340 345 350

 Ala Val Leu Ile Thr Arg Tyr Asp Ile Cys Thr Tyr Lys Asn Lys Pro
 355 360 365

 Cys Gly Thr Leu Gly Leu Ala Ser Val Ala Gly Met Cys Glu Pro Glu
 370 375 380

Arg Ser Cys Ser Ile Asn Glu Asp Ile Gly Leu Gly Ser Ala Phe Thr
 385 390 395 400

 Ile Ala His Glu Ile Val His Asn Phe Gly Met Asn His Asp Gly Ile
 405 410 415

 Gly Asn Ser Cys Gly Arg Lys Val Met Lys Gln Gln Asn Tyr Gly Ser
 420 425 430

 Ser His Tyr Cys Glu Tyr Gln Ser Phe Phe Leu Val Cys Leu Gln Ser
 435 440 445

 Arg Xaa His His Gln Leu Phe Arg Glu Val Cys Arg Glu Leu Trp Cys
 450 455 460

 Leu Ser Lys Ser Asn Arg Cys Val Thr Asn Ser Ile Pro Ala Ala Glu
 465 470 475 480

 Gly Thr Leu Cys Gln Thr Gly Asn Ile Glu Lys Gly Trp Cys Tyr Gln
 485 490 495

 Gly Asp Cys Val Pro Phe Gly Thr Trp Pro Gln Ser Ile Asp Gly Gly
 500 505 510

 Trp Gly Pro Trp Ser Leu Trp Gly Glu Cys Ser Arg Thr Cys Gly Gly
 515 520 525

 Gly Val Ser Ser Ser Leu Arg His Cys Asp Ser Pro Ala Pro Ser Gly
 530 535 540

 Gly Gly Lys Tyr Cys Leu Gly Glu Arg Lys Arg Tyr Arg Ser Cys Asn
 545 550 555 560

 Thr Asp Pro Cys Pro Leu Gly Ser Arg Asp Phe Arg Glu Lys Gln Cys
 565 570 575

 Ala Asp Phe Asp Asn Met Pro Phe Arg Gly Lys Tyr Tyr Asn Trp Lys
 580 585 590

 Pro Tyr Thr Gly Gly Val Lys Pro Cys Ala Leu Asn Cys Leu Ala
 595 600 605

 Glu Gly Tyr Asn Phe Tyr Thr Glu Arg Ala Pro Ala Val Ile Asp Gly
 610 615 620

 Thr Gln Cys Asn Ala Asp Ser Leu Asp Ile Cys Ile Asn Gly Glu Cys
 625 630 635 640

 Lys His Val Gly Cys Asp Asn Ile Leu Gly Ser Asp Ala Arg Glu Asp
 645 650 655

 Arg Cys Arg Val Cys Gly Gly Ser Thr Cys Asp Ala Ile Glu
 660 665 670

 Gly Phe Phe Asn Asp Ser Leu Pro Arg Gly Gly Tyr Met Glu Val Val
 675 680 685

Gln Ile Pro Arg Gly Ser Val His Ile Glu Val Arg Glu Val Ala Met
 690 695 700
 Ser Lys Asn Tyr Ile Ala Leu Lys Ser Glu Gly Asp Asp Tyr Tyr Ile
 705 710 715 720
 Asn Gly Ala Trp Thr Ile Asp Trp Pro Arg Lys Phe Asp Val Ala Gly
 725 730 735
 Thr Ala Phe His Tyr Lys Arg Pro Thr Asp Glu Pro Glu Ser Leu Glu
 740 745 750
 Ala Leu Gly Pro Thr Ser Glu Asn Leu Ile Val Met Val Leu Leu Gln
 755 760 765
 Glu Gln Asn Leu Gly Ile Arg Tyr Lys Phe Asn Val Pro Ile Thr Arg
 770 775 780
 Thr Gly Ser Gly Asp Asn Glu Val Gly Phe Thr Trp Asn His Gln Pro
 785 790 795 800
 Trp Ser Glu Cys Ser Ala Thr Cys Ala Gly Gly Lys Met Pro Thr Arg
 805 810 815
 Gln Pro Thr Gln Arg Ala Arg Trp Arg Thr Lys His Ile Leu Ser Tyr
 820 825 830
 Ala Leu Cys Leu Leu Lys Lys Leu Ile Gly Asn Ile Ser Cys Arg Phe
 835 840 845
 Ala Ser Ser Cys Asn Leu Ala Lys Glu Thr Leu Leu
 850 855 860

 <210> 35
 <211> 936
 <212> PRT
 <213> Homo sapiens

 <400> 35
 Arg Leu Leu Ile Tyr Ala Val Leu Pro Thr Gly Asp Val Ile Gly Asp
 1 5 10 15

 Ser Ala Lys Tyr Asp Val Glu Asn Cys Leu Ala Asn Lys Val Asp Leu
 20 25 30

 Ser Phe Ser Pro Ser Gln Ser Leu Pro Ala Ser His Ala His Leu Arg
 35 40 45

 Val Thr Ala Ala Pro Gln Ser Val Cys Ala Leu Arg Ala Val Asp Gln
 50 55 60

 Ser Val Leu Leu Met Lys Pro Asp Ala Glu Leu Ser Ala Ser Ser Val
 65 70 75 80

 Tyr Asn Leu Leu Pro Glu Lys Asp Leu Thr Gly Phe Pro Gly Pro Leu

85	90	95
Asn Asp Gln Asp Asn Glu Asp Cys Ile Asn Arg His Asn Val Tyr Ile		
100	105	110
Asn Gly Ile Thr Tyr Thr Pro Val Ser Ser Thr Asn Glu Lys Asp Met		
115	120	125
Tyr Ser Phe Leu Glu Asp Met Gly Leu Lys Ala Phe Thr Asn Ser Lys		
130	135	140
Ile Arg Lys Pro Lys Met Cys Pro Gln Leu Gln Gln Tyr Glu Met His		
145	150	155
Gly Pro Glu Gly Leu Arg Val Gly Phe Tyr Glu Ser Asp Val Met Gly		
165	170	175
Arg Gly His Ala Arg Leu Val His Val Glu Glu Pro His Thr Glu Thr		
180	185	190
Val Arg Lys Tyr Phe Pro Glu Thr Trp Ile Trp Asp Leu Val Val Val		
195	200	205
Asn Ser Ala Gly Val Ala Glu Val Gly Val Thr Val Pro Asp Thr Ile		
210	215	220
Thr Glu Trp Lys Ala Gly Ala Phe Cys Leu Ser Glu Asp Ala Gly Leu		
225	230	235
Gly Ile Ser Ser Thr Ala Ser Leu Arg Ala Phe Gln Pro Phe Phe Val		
245	250	255
Glu Leu Thr Met Pro Tyr Ser Val Ile Arg Gly Glu Ala Phe Thr Leu		
260	265	270
Lys Ala Thr Val Leu Asn Tyr Leu Pro Lys Cys Ile Arg Val Ser Val		
275	280	285
Gln Leu Glu Ala Ser Pro Ala Phe Leu Ala Val Pro Val Glu Lys Glu		
290	295	300
Gln Ala Pro His Cys Ile Cys Ala Asn Gly Arg Gln Thr Val Ser Trp		
305	310	315
Ala Val Thr Pro Lys Ser Leu Gly Asn Val Asn Phe Thr Val Ser Ala		
325	330	335
Glu Ala Leu Glu Ser Gln Glu Leu Cys Gly Thr Glu Val Pro Ser Val		
340	345	350
Pro Glu His Gly Arg Lys Asp Thr Val Ile Lys Pro Leu Leu Val Glu		
355	360	365
Pro Glu Gly Leu Glu Lys Glu Thr Thr Phe Asn Ser Leu Leu Cys Pro		
370	375	380
Ser Gly Gly Glu Val Ser Glu Glu Leu Ser Leu Lys Leu Pro Pro Asn		

385	390	395	400
Val Val Glu Glu Ser Ala Arg Ala Ser Val Ser Val Leu Gly Asp Ile			
405		410	415
Leu Gly Ser Ala Met Gln Asn Thr Gln Asn Leu Leu Gln Met Pro Tyr			
420		425	430
Gly Cys Gly Glu Gln Asn Met Val Leu Phe Ala Pro Asn Ile Tyr Val			
435	440		445
Leu Asp Tyr Leu Asn Glu Thr Gln Gln Leu Thr Pro Glu Ile Lys Ser			
450	455		460
Lys Ala Ile Gly Tyr Leu Asn Thr Gly Tyr Gln Arg Gln Leu Asn Tyr			
465	470	475	480
Lys His Tyr Asp Gly Ser Tyr Ser Thr Phe Gly Glu Arg Tyr Gly Arg			
485		490	495
Asn Gln Gly Asn Thr Trp Leu Thr Ala Phe Val Leu Lys Thr Phe Ala			
500		505	510
Gln Ala Arg Ala Tyr Ile Phe Ile Asp Glu Ala His Ile Thr Gln Ala			
515	520		525
Leu Ile Trp Leu Ser Gln Arg Gln Lys Asp Asn Gly Cys Phe Arg Ser			
530	535		540
Ser Gly Ser Leu Leu Asn Asn Ala Ile Lys Gly Gly Val Glu Asp Glu			
545	550	555	560
Val Thr Leu Ser Ala Tyr Ile Thr Ile Ala Leu Leu Glu Ile Pro Leu			
565		570	575
Thr Val Thr His Pro Val Val Arg Asn Ala Leu Phe Cys Leu Glu Ser			
580		585	590
Ala Trp Lys Thr Ala Gln Glu Gly Asp His Gly Ser His Val Tyr Thr			
595	600		605
Lys Ala Leu Leu Ala Tyr Ala Phe Ala Leu Ala Gly Asn Gln Asp Lys			
610	615		620
Arg Lys Glu Val Leu Lys Ser Leu Asn Glu Glu Ala Val Lys Lys Asp			
625	630	635	640
Asn Ser Val His Trp Glu Arg Pro Gln Lys Pro Lys Ala Pro Val Gly			
645		650	655
His Phe Tyr Glu Pro Gln Ala Pro Ser Ala Glu Val Glu Met Thr Ser			
660		665	670
Tyr Val Leu Leu Ala Tyr Leu Thr Ala Gln Pro Ala Pro Thr Ser Glu			
675	680		685
Asp Leu Thr Ser Ala Thr Asn Ile Val Lys Trp Ile Thr Lys Gln Gln			

690	695	700
Asn Ala Gln Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu		
705	710	715
His Ala Leu Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys		
725	730	735
Ala Ala Gln Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe		
740	745	750
Gln Val Asp Asn Asn Arg Leu Leu Leu Gln Gln Val Ser Leu Pro		
755	760	765
Glu Leu Pro Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly Cys Val		
770	775	780
Tyr Leu Gln Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu		
785	790	795
Phe Pro Phe Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu		
805	810	815
Pro Lys Ala His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr		
820	825	830
Gly Ser Arg Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val		
835	840	845
Ser Gly Phe Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser		
850	855	860
Asn His Val Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr		
865	870	875
Leu Asp Lys Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu		
885	890	895
Gln Asp Val Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr		
900	905	910
Asp Tyr Tyr Glu Thr Gly Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro		
915	920	925
Cys Ser Lys Asp Leu Gly Asn Ala		
930	935	
<210> 36		
<211> 898		
<212> PRT		
<213> Homo sapiens		
<400> 36		
Arg Leu Leu Ile Tyr Ala Val Leu Pro Thr Gly Asp Val Ile Gly Asp		
1	5	10
15		

Ser Ala Lys Tyr Asp Val Glu Asn Cys Leu Ala Asn Lys Val Asp Leu
 20 25 30

Ser Phe Ser Pro Ser Gln Ser Leu Pro Ala Ser His Ala His Leu Arg
 35 40 45

Val Thr Ala Ala Pro Gln Ser Val Cys Ala Leu Arg Ala Val Asp Gln
 50 55 60

Ser Val Leu Leu Met Lys Pro Asp Ala Glu Leu Ser Ala Ser Ser Val
 65 70 75 80

Tyr Asn Leu Leu Pro Glu Lys Asp Leu Thr Gly Phe Pro Gly Pro Leu
 85 90 95

Asn Asp Gln Asp Asp Glu Asp Cys Ile Asn Arg His Asn Val Tyr Ile
 100 105 110

Asn Gly Ile Thr Tyr Thr Pro Val Ser Ser Thr Asn Glu Lys Asp Met
 115 120 125

Tyr Ser Phe Leu Glu Asp Met Gly Leu Lys Ala Phe Thr Asn Ser Lys
 130 135 140

Ile Arg Lys Glu Glu Pro His Thr Glu Thr Val Arg Lys Tyr Phe Pro
 145 150 155 160

Glu Thr Trp Ile Trp Asp Leu Val Val Val Asn Ser Ala Gly Val Ala
 165 170 175

Glu Val Gly Val Thr Val Pro Asp Thr Ile Thr Glu Trp Lys Ala Gly
 180 185 190

Ala Phe Cys Leu Ser Glu Asp Ala Gly Leu Gly Ile Ser Ser Thr Ala
 195 200 205

Ser Leu Arg Ala Phe Gln Pro Phe Phe Val Glu Leu Thr Met Pro Tyr
 210 215 220

Ser Val Ile Arg Gly Glu Ala Phe Thr Leu Lys Ala Thr Val Leu Asn
 225 230 235 240

Tyr Leu Pro Lys Cys Ile Arg Val Ser Val Gln Leu Glu Ala Ser Pro
 245 250 255

Ala Phe Leu Ala Val Pro Val Glu Lys Glu Gln Ala Pro His Cys Ile
 260 265 270

Cys Ala Asn Gly Arg Gln Thr Val Ser Trp Ala Val Thr Pro Lys Ser
 275 280 285

Leu Gly Asn Val Asn Phe Thr Val Ser Ala Glu Ala Leu Glu Ser Gln
 290 295 300

Glu Leu Cys Gly Thr Glu Val Pro Ser Val Pro Glu His Gly Arg Lys
 305 310 315 320

Asp Thr Val Ile Lys Pro Leu Leu Val Glu Pro Glu Gly Leu Glu Lys
 325 330 335

 Glu Thr Thr Phe Asn Ser Leu Leu Cys Pro Ser Gly Gly Glu Val Ser
 340 345 350

 Glu Glu Leu Ser Leu Lys Leu Pro Pro Asn Val Val Glu Glu Ser Ala
 355 360 365

 Arg Ala Ser Val Ser Val Leu Gly Asp Ile Leu Gly Ser Ala Met Gln
 370 375 380

 Asn Thr Gln Asn Leu Leu Gln Met Pro Tyr Gly Cys Gly Glu Gln Asn
 385 390 395 400

 Met Val Leu Phe Ala Pro Asn Ile Tyr Val Leu Asp Tyr Leu Asn Glu
 405 410 415

 Thr Gln Gln Leu Thr Pro Glu Val Lys Ser Lys Ala Ile Gly Tyr Leu
 420 425 430

 Asn Thr Gly Tyr Gln Arg Gln Leu Asn Tyr Lys His Tyr Asp Gly Ser
 435 440 445

 Tyr Ser Thr Phe Gly Glu Arg Tyr Gly Arg Asn Gln Gly Asn Thr Trp
 450 455 460

 Leu Thr Ala Phe Val Leu Lys Thr Phe Ala Gln Ala Arg Ala Tyr Ile
 465 470 475 480

 Phe Ile Asp Glu Ala His Ile Thr Gln Ala Leu Ile Trp Leu Ser Gln
 485 490 495

 Arg Gln Lys Asp Asn Gly Cys Phe Arg Ser Ser Gly Ser Leu Leu Asn
 500 505 510

 Asn Ala Ile Lys Gly Gly Val Glu Asp Glu Val Thr Leu Ser Ala Tyr
 515 520 525

 Ile Thr Ile Ala Leu Leu Glu Ile Pro Leu Thr Val Thr His Pro Val
 530 535 540

 Val Arg Asn Ala Leu Phe Cys Leu Glu Ser Ala Trp Lys Thr Ala Gln
 545 550 555 560

 Glu Gly Asp His Gly Ser His Val Tyr Thr Lys Ala Leu Leu Ala Tyr
 565 570 575

 Ala Phe Ala Leu Ala Gly Asn Gln Asp Lys Arg Lys Glu Val Leu Lys
 580 585 590

 Ser Leu Asn Glu Glu Ala Val Lys Lys Asp Asn Ser Val His Trp Glu
 595 600 605

 Arg Pro Gln Lys Pro Lys Ala Pro Val Gly His Phe Tyr Glu Pro Gln
 610 615 620

Ala Pro Ser Ala Glu Val Glu Met Thr Ser Tyr Val Leu Leu Ala Tyr
 625 630 635 640
 Leu Thr Ala Gln Pro Ala Pro Thr Ser Glu Asp Leu Thr Ser Ala Thr
 645 650 655
 Asn Ile Val Lys Trp Ile Thr Lys Gln Gln Asn Ala Gln Gly Gly Phe
 660 665 670
 Ser Ser Thr Gln Asp Thr Val Val Ala Leu His Ala Leu Ser Lys Tyr
 675 680 685
 Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys Ala Ala Gln Val Thr Ile
 690 695 700
 Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe Gln Val Asp Asn Asn Asn
 705 710 715 720
 Arg Leu Leu Leu Gln Gln Val Ser Leu Pro Glu Leu Pro Gly Glu Tyr
 725 730 735
 Ser Met Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln Thr Ser Leu
 740 745 750
 Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe Ala Leu Gly
 755 760 765
 Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala His Thr Ser
 770 775 780
 Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg Ser Ala Ser
 785 790 795 800
 Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe Ile Pro Leu
 805 810 815
 Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val Ser Arg Thr
 820 825 830
 Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys Val Ser Asn
 835 840 845
 Gln Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val Pro Val Arg
 850 855 860
 Asp Leu Lys Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr Glu Thr Asp
 865 870 875 880
 Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro Cys Ser Lys Asp Leu Gly
 885 890 895
 Asn Ala

<210> 37
 <211> 936

<212> PRT

<213> Homo sapiens

<400> 37

Arg Leu Leu Ile Tyr Ala Val Leu Pro Thr Gly Asp Val Ile Gly Asp
1 5 10 15

Ser Ala Lys Tyr Asp Val Glu Asn Glu Leu Ala Asn Lys Val Asp Leu
20 25 30

Ser Phe Ser Pro Ser Gln Ser Leu Pro Ala Ser His Ala His Leu Arg
35 40 45

Val Thr Ala Ala Pro Gln Ser Val Cys Ala Leu Arg Ala Val Asp Gln
50 55 60

Ser Val Leu Leu Met Lys Pro Asp Ala Glu Leu Ser Ala Ser Ser Val
65 70 75 80

Tyr Asn Leu Leu Pro Glu Lys Asp Leu Thr Gly Phe Pro Gly Pro Leu
85 90 95

Asn Asp Gln Asp Asp Glu Asp Cys Ile Asn Arg His Asn Val Tyr Ile
100 105 110

Asn Gly Ile Thr Tyr Thr Pro Val Ser Ser Thr Asn Glu Lys Asp Met
115 120 125

Tyr Ser Phe Leu Glu Asp Met Gly Leu Lys Ala Phe Thr Asn Ser Lys
130 135 140

Ile Arg Lys Pro Lys Met Cys Pro Gln Leu Gln Gln Tyr Glu Met His
145 150 155 160

Gly Pro Glu Gly Leu Arg Val Gly Phe Tyr Glu Ser Asp Val Met Gly
165 170 175

Arg Gly His Ala Arg Leu Val His Val Glu Glu Pro His Thr Glu Thr
180 185 190

Val Arg Lys Tyr Phe Pro Glu Thr Trp Ile Trp Asp Leu Val Val Val
195 200 205

Asn Ser Ala Gly Val Ala Glu Val Gly Val Thr Val Pro Asp Thr Ile
210 215 220

Thr Glu Trp Lys Ala Gly Ala Phe Cys Leu Ser Glu Asp Ala Gly Leu
225 230 235 240

Gly Ile Ser Ser Thr Ala Ser Leu Arg Ala Phe Gln Pro Phe Phe Val
245 250 255

Glu Leu Thr Met Pro Tyr Ser Val Ile Arg Gly Glu Ala Phe Thr Leu
260 265 270

Lys Ala Thr Val Leu Asn Tyr Leu Pro Lys Cys Ile Arg Val Ser Val
275 280 285

Gln Leu Glu Ala Ser Pro Ala Phe Leu Ala Val Pro Val Glu Lys Glu
290 295 300

Gln Ala Pro His Cys Ile Cys Ala Asn Gly Arg Gln Thr Val Ser Trp
305 310 315 320

Ala Val Thr Pro Lys Ser Leu Gly Asn Val Asn Phe Thr Val Ser Ala
325 330 335

Glu Ala Leu Glu Ser Gln Glu Leu Cys Gly Thr Glu Val Pro Ser Val
340 345 350

Pro Glu His Gly Arg Lys Asp Thr Val Ile Lys Pro Leu Leu Val Glu
355 360 365

Pro Glu Gly Leu Glu Lys Glu Thr Thr Phe Asn Ser Leu Leu Cys Pro
370 375 380

Ser Gly Gly Glu Val Ser Glu Glu Leu Ser Leu Lys Leu Pro Pro Asn
385 390 395 400

Val Val Glu Glu Ser Ala Arg Ala Ser Val Ser Val Leu Gly Asp Ile
405 410 415

Leu Gly Ser Ala Met Gln Asn Thr Gln Asn Leu Leu Gln Met Pro Tyr
420 425 430

Gly Cys Gly Glu Glx Asn Met Val Leu Phe Ala Pro Asn Ile Tyr Val
435 440 445

Leu Asp Tyr Leu Asn Glu Thr Gln Gln Leu Thr Pro Glu Ile Lys Ser
450 455 460

Lys Ala Ile Gly Tyr Leu Asn Thr Gly Tyr Gln Arg Gln Leu Asn Tyr
465 470 475 480

Lys His Tyr Asp Gly Ser Tyr Ser Thr Phe Gly Glu Arg Tyr Gly Arg
485 490 495

Asn Gln Gly Asn Thr Trp Leu Thr Ala Phe Val Leu Lys Thr Phe Ala
500 505 510

Gln Ala Arg Ala Tyr Ile Phe Ile Asp Glu Ala His Ile Thr Gln Ala
515 520 525

Leu Ile Trp Leu Ser Gln Arg Gln Lys Asp Asn Gly Cys Phe Arg Ser
530 535 540

Ser Gly Ser Leu Leu Asn Asn Ala Ile Lys Gly Gly Val Glu Asp Glu
545 550 555 560

Val Thr Leu Ser Ala Tyr Ile Lys Ile Ala Leu Leu Glu Ile Pro Leu
565 570 575

Thr Val Thr His Pro Val Val Arg Asn Ala Leu Phe Cys Leu Glu Ser
580 585 590

Ala Trp Lys Thr Ala Glu Glu Gly Asp His Gly Ser His Val Tyr Thr
 595 600 605

Lys Ala Leu Leu Ala Tyr Ala Phe Ala Leu Ala Gly Asn Gln Asp Lys
 610 615 620

Arg Lys Glu Val Leu Lys Ser Leu Asn Glu Glu Ala Val Lys Lys Asp
 625 630 635 640

Asn Ser Val His Trp Glu Arg Pro Gln Lys Pro Lys Ala Pro Val Gly
 645 650 655

His Phe Tyr Glu Pro Gln Ala Pro Ser Ala Glu Val Glu Met Thr Ser
 660 665 670

Tyr Val Leu Leu Ala Tyr Leu Thr Ala Gln Pro Ala Pro Thr Ser Glu
 675 680 685

Asp Leu Thr Ser Ala Thr Asn Ile Val Lys Trp Ile Thr Lys Gln Gln
 690 695 700

Asn Ala Gln Gly Gly Phe Ser Ser Thr Gln Asp Lys Val Val Ala Leu
 705 710 715 720

His Ala Leu Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys
 725 730 735

Ala Ala Gln Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe
 740 745 750

Gln Val Asp Asn Asn Asn Arg Leu Leu Leu Gln Gln Val Ser Leu Pro
 755 760 765

Glu Leu Pro Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly Cys Val
 770 775 780

Tyr Leu Gln Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu
 785 790 795 800

Phe Pro Phe Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu
 805 810 815

Pro Lys Ala His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr
 820 825 830

Gly Ser Arg Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val
 835 840 845

Ser Gly Phe Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser
 850 855 860

Asn His Val Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr
 865 870 875 880

Leu Asp Lys Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu
 885 890 895

Gln Asp Val Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr
900 905 910

Asp Tyr Tyr Glu Thr Asp Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro
915 920 925

Cys Ser Lys Asp Leu Gly Asn Ala
930 935

<210> 38

<211> 931

<212> PRT

<213> Rattus norvegicus

<400> 38

Arg Leu Val Leu Tyr Ala Ile Leu Pro Asn Gly Glu Val Val Gly Asp
1 5 10 15

Thr Ala Lys Tyr Glu Ile Glu Asn Cys Leu Ala Asn Lys Val Asp Leu
20 25 30

Val Phe Arg Pro Asn Ser Gly Leu Pro Ala Thr Arg Ala Leu Leu Ser
35 40 45

Val Met Ala Ser Pro Gln Ser Leu Cys Gly Leu Arg Ala Val Asp Gln
50 55 60

Ser Val Leu Leu Met Lys Pro Glu Thr Glu Leu Ser Ala Ser Leu Ile
65 70 75 80

Tyr Asp Leu Leu Pro Val Lys Asp Leu Thr Gly Phe Pro Gln Gly Ala
85 90 95

Asp Gln Arg Glu Glu Asp Thr Asn Gly Cys Val Lys Gln Asn Asp Thr
100 105 110

Tyr Ile Asn Gly Ile Leu Tyr Ser Pro Val Gln Asn Thr Asn Glu Glu
115 120 125

Asp Met Tyr Gly Phe Leu Lys Asp Met Gly Leu Lys Val Phe Thr Asn
130 135 140

Ser Asn Ile Arg Lys Pro Lys Val Cys Glu Arg Leu Arg Asp Asn Lys
145 150 155 160

Gly Ile Pro Ala Ala Tyr His Leu Val Ser Gln Ser His Met Asp Ala
165 170 175

Phe Leu Glu Ser Ser Glu Ser Pro Thr Glu Thr Arg Arg Ser Tyr Phe
180 185 190

Pro Glu Thr Trp Ile Trp Asp Leu Val Val Val Asp Ser Ala Gly Val
195 200 205

Ala Glu Val Glu Val Thr Val Pro Asp Thr Ile Thr Glu Trp Lys Ala

210	215	220
Gly Ala Phe Cys Leu Ser Asn Asp Thr Gly	Leu Gly Leu Ser Pro Val	
225	230	235
240		
Val Gln Phe Gln Ala Phe Gln Pro Phe	Phe Val Glu Leu Thr Met Pro	
245	250	255
Tyr Ser Val Ile Arg Gly Glu Ala Phe	Thr Leu Lys Ala Thr Val Leu	
260	265	270
Asn Tyr Leu Pro Thr Cys Ile Arg Val Ala	Val Gln Leu Glu Ala Ser	
275	280	285
Pro Asp Phe Leu Ala Ala Pro Glu Glu Lys	Glu Gln Arg Ser His Cys	
290	295	300
Ile Cys Met Asn Gln Arg His Thr Ala Ser	Trp Ala Val Ile Pro Lys	
305	310	315
320		
Ser Leu Gly Asn Val Asn Phe Thr Val Ser	Ala Glu Ala Leu Asn Ser	
325	330	335
Lys Glu Leu Cys Gly Asn Glu Val Pro	Val Val Pro Glu Gln Gly Lys	
340	345	350
Lys Asp Thr Ile Ile Lys Ser Leu Leu Val	Glu Pro Glu Gly Leu Glu	
355	360	365
Asn Glu Val Thr Phe Asn Ser Leu Leu Cys	Pro Met Gly Ala Glu Val	
370	375	380
Ser Glu Leu Ile Ala Leu Lys Leu Pro	Ser Asp Val Val Glu Glu Ser	
385	390	395
400		
Ala Arg Ala Ser Val Thr Val Leu Gly	Asp Ile Leu Gly Ser Ala Met	
405	410	415
Gln Asn Thr Gln Asp Leu Leu Lys	Met Pro Tyr Gly Cys Gly Glu Gln	
420	425	430
Asn Met Val Leu Phe Ala Pro Asn Ile	Tyr Val Leu Asp Tyr Leu Asn	
435	440	445
Glu Thr Gln Gln Leu Thr Gln Glu Ile	Lys Thr Lys Ala Ile Ala Tyr	
450	455	460
Leu Asn Thr Gly Tyr Gln Arg Gln Leu Asn	Tyr Lys His Arg Asp Gly	
465	470	475
480		
Ser Tyr Ser Ala Phe Gly Asp Lys Pro	Gly Arg Asn His Ala Asn Thr	
485	490	495
Trp Leu Thr Ala Phe Val Leu Lys Ser	Phe Ala Gln Ala Arg Lys Tyr	
500	505	510
Ile Phe Ile Asp Glu Val His Ile	Thr Gln Ala Leu Leu Trp Leu Ser	

515	520	525
Gln Gln Gln Lys Asp Asn Gly Cys Phe Arg Ser Ser Gly Ser Leu Leu		
530	535	540
Asn Asn Ala Met Lys Gly Gly Val Glu Asp Glu Val Thr Leu Ser Ala		
545	550	555
Tyr Ile Thr Ile Ala Leu Leu Glu Met Ser Leu Pro Val Thr His Pro		
565	570	575
Val Val Arg Asn Ala Leu Phe Cys Leu Asp Thr Ala Trp Lys Ser Ala		
580	585	590
Arg Gly Gly Ala Gly Gly Ser His Val Tyr Thr Lys Ala Leu Leu Ala		
595	600	605
Tyr Ala Phe Ala Leu Ala Gly Pro Val Val Arg Asn Ala Leu Phe Cys		
610	615	620
Leu Asp Thr Ala Trp Lys Ser Ala Arg Gly Gly Ala Gly Gly Ser His		
625	630	635
Val Tyr Thr Lys Ala Leu Leu Ala Tyr Ala Phe Ala Leu Ala Gly Pro		
645	650	655
Gln Ala Thr Ser Ala Glu Val Glu Met Thr Ala Tyr Val Leu Leu Ala		
660	665	670
Tyr Leu Thr Thr Glu Pro Ala Pro Thr Gln Glu Asp Leu Thr Ala Ala		
675	680	685
Met Leu Ile Val Lys Trp Leu Thr Lys Gln Gln Asn Ser His Gly Gly		
690	695	700
Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu His Ala Leu Ser Lys		
705	710	715
Tyr Gly Ser Ala Thr Phe Thr Arg Ala Lys Lys Ala Ala Gln Val Thr		
725	730	735
Ile Arg Ser Ser Gly Thr Phe Ser Thr Lys Phe Gln Val Asn Asn Asn		
740	745	750
Asn Gln Leu Leu Leu Gln Arg Val Thr Leu Pro Thr Val Pro Gly Asp		
755	760	765
Tyr Thr Val Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln Thr Ser		
770	775	780
Leu Lys Tyr Ser Val Leu Pro Arg Glu Glu Glu Phe Pro Phe Ala Val		
785	790	795
Val Val Gln Thr Leu Pro Gly Thr Cys Glu Asp Pro Lys Ala His Thr		
805	810	815
Ser Phe Gln Ile Ser Leu Asn Ile Ser Tyr Thr Gly Ser Arg Ser Glu		

820	825	830	
Ser Asn Met Ala Ile Ala Asp Val Lys Met Val Ser Gly Phe Ile Pro			
835	840	845	
Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Val His Val Ser Arg			
850	855	860	
Thr Glu Val Ser Asn Asn His Val Leu Ile Tyr Leu Asp Lys Val Ser			
865	870	875	880
Asn Gln Thr Val Asn Leu Ser Phe Thr Val Gln Gln Asp Ile Pro Ile			
885	890	895	
Arg Asp Leu Lys Pro Ala Val Val Lys Val Tyr Asp Tyr Tyr Glu Lys			
900	905	910	
Asp Glu Phe Ala Val Ala Lys Tyr Ser Ala Pro Cys Ser Thr Asp Tyr			
915	920	925	
Gly Asn Ala			
930			
<210> 39			
<211> 941			
<212> PRT			
<213> Cavia porcellus			
<400> 39			
Arg Val Leu Ile Tyr Ala Ile Leu Pro Ser Gly Glu Ile Ile Ala Asp			
1	5	10	15
Ser Ala Lys Tyr Asn Val Glu Asn Cys Leu Asp Asn Lys Val Asn Leu			
20	25	30	
Ser Phe Ser Glu Gly Gln Ser Leu Pro Ala Ser Lys Thr His Leu Arg			
35	40	45	
Val Thr Ala Ser Pro Gln Ser Leu Cys Ala Leu Arg Ala Val Asp Gln			
50	55	60	
Ser Val Leu Leu Arg Lys Pro Glu Ala Val Leu Ser Ala Ser Ser Val			
65	70	75	80
Tyr Ala Leu Leu Pro Val Lys Asp Leu Thr Gly Phe Pro Gly Leu Leu			
85	90	95	
Gly Gln Gln Glu Glu Asn Asp Gly Glu Cys Val Ser Leu Tyr Asn Thr			
100	105	110	
Tyr Ile Asp Gly Ile Leu Tyr Ser Pro Glu Pro Asn Ile Asn Glu Lys			
115	120	125	
Asp Met Tyr Gly Phe Leu Lys Asp Met Gly Leu Lys Val Phe Thr Asn			
130	135	140	

Thr Lys Ile Gln Lys Pro Gln Leu Cys Ala His Val Gln Lys Phe Glu
 145 150 155 160
 Val Pro Thr Met Ala Tyr Ser Tyr Ser Glu Ser Ser Ser Phe Arg Ser
 165 170 175
 Gly Pro Arg Arg Val Pro Ala Val Gly Ile Ala Ala Thr Tyr Ser Glu
 180 185 190
 Pro Pro Lys Glu Thr Val Arg Thr Tyr Ser Pro Glu Thr Trp Ile Trp
 195 200 205
 Asp Leu Lys Val Thr Asp Ser Ser Gly Val Ala Glu Val Glu Val Thr
 210 215 220
 Val Pro Asp Thr Ile Thr Glu Trp Lys Ala Gly Ala Phe Cys Leu Ser
 225 230 235 240
 Asn Asp Thr Gly Leu Gly Leu Ser Pro Thr Ala Ser Leu Arg Ala Phe
 245 250 255
 Gln Pro Phe Phe Val Glu Leu Thr Met Pro Tyr Ser Val Ile Arg Gly
 260 265 270
 Glu Ala Phe Thr Leu Lys Ala Thr Val Leu Asn Tyr Leu Pro Asp Cys
 275 280 285
 Ile Arg Ile Ser Val His Leu Glu Ala Ser Pro Lys Phe Leu Ala Glu
 290 295 300
 Pro Lys Ala Lys Glu Gln Glu Ser Tyr Cys Val Cys Gly Asn Glu Arg
 305 310 315 320
 Gln Thr Val Ser Trp Val Val Thr Pro Lys Ser Leu Gly Asn Val Asn
 325 330 335
 Phe Thr Val Ser Ala Glu Ala Leu Glu Ser Ser Glu Leu Cys Gly Asn
 340 345 350
 Glu Lys Thr Val Val Pro Thr Tyr Gly Lys Lys Asp Thr Ile Ile Lys
 355 360 365
 Pro Leu Leu Val Glu Pro Glu Gly Ile Glu Lys Glu Glu Thr Trp Thr
 370 375 380
 Ser Leu Ile Arg Val Ser Asp Thr Thr Val Ser Glu Lys Leu His Leu
 385 390 395 400
 Glu Leu Pro Ser Asn Val Ile Gln Asp Ser Ala Arg Ala Thr Val Ser
 405 410 415
 Ile Leu Gly Asp Ile Leu Gly Ser Ala Met Gln Asn Ile Gln Asn Leu
 420 425 430
 Leu Gln Met Pro Tyr Gly Cys Gly Glu Gln Asn Met Val Leu Phe Ala
 435 440 445

Pro Asn Ile Tyr Val Leu Asp Tyr Leu Asn Glu Thr Gln Gln Leu Thr
450 455 460

Pro Asp Ile Lys Ser Lys Ala Ile Ser Tyr Leu Ser Thr Gly Tyr Gln
465 470 475 480

Arg Gln Leu Asn Tyr Lys His Arg Asp Gly Ser Tyr Ser Thr Phe Gly
485 490 495

Glu Asn Tyr Arg Gly Gly Gln Gly Asn Thr Trp Leu Thr Ala Phe Val
500 505 510

Leu Lys Thr Phe Ser Gln Ala Arg Lys Tyr Ile Phe Ile Asp Glu Ala
515 520 525

His Ile Thr Gln Ala Leu Ser Trp Leu Ser Gln Lys Gln Lys Asp Asn
530 535 540

Gly Cys Phe Trp Ser Ser Gly Ser Leu Leu Asn Asn Ala Ile Lys Gly
545 550 555 560

Gly Val Glu Asp Glu Ile Ser Leu Ser Ala Tyr Ile Thr Ile Ala Leu
565 570 575

Leu Glu Met Ser Leu Pro Asp Thr His Pro Val Val Arg Asn Ala Leu
580 585 590

Phe Cys Leu Glu Ser Ala Trp Lys Ser Ala Lys Glu Gly Thr His Gly
595 600 605

Ser His Val Tyr Thr Lys Ala Leu Leu Ala Tyr Ala Phe Ala Leu Ala
610 615 620

Gly Asn Gln Glu Arg Lys Lys Glu Ile Leu Lys Ser Leu Glu Asp Glu
625 630 635 640

Gly Val Lys Glu Asp Asn Ser Leu His Trp Ala Arg Pro Gln Lys Pro
645 650 655

Lys Val Ser Glu Gly Phe Leu Phe Lys Ser Gln Ala Pro Ser Ala Glu
660 665 670

Val Glu Met Thr Ser Tyr Val Leu Leu Ala Tyr Leu Thr Ala Arg Pro
675 680 685

Ala Pro Thr Pro Glu Asp Leu Thr Ser Ala Thr Asp Ile Val Asn Trp
690 695 700

Val Thr Lys Gln Gln Asn Ser His Gly Gly Tyr Ser Ser Thr Gln Asp
705 710 715 720

Thr Val Val Ala Leu His Ala Leu Ser Lys Tyr Ala Ala Ala Thr Phe
725 730 735

Thr Arg Thr Glu Lys Ala Ala Gln Val Thr Ile Lys Ser Ser Gly Thr
740 745 750

Phe Ser Thr Asn Phe Glu Val Asn His Asn Asn Arg Leu Leu Leu Gln
 755 760 765
 Gln Val Ser Leu Pro Thr Val Ser Asp Ser Tyr Thr Ile Thr Val Thr
 770 775 780
 Gly Glu Gly Asn Val Tyr Leu Gln Thr Ser Leu Lys Tyr Asn Val Pro
 785 790 795 800
 Ser Glu Lys Gly Thr Phe Pro Phe Ala Leu Glu Ala Glu Thr Val Pro
 805 810 815
 Gln Ala Cys Asp Gly Pro Lys Ala His Thr Ser Phe Gln Ile Ser Leu
 820 825 830
 Asn Val Ser Tyr Ile Gly Ser Arg Pro Val Ser Asn Met Ala Ile Val
 835 840 845
 Asp Val Lys Met Val Ser Gly Phe Ile Pro Leu Lys Pro Thr Val Lys
 850 855 860
 Asn Leu Glu Lys Ser Glu His Ile Ser Arg Thr Glu Val Ser Asn Asn
 865 870 875 880
 His Val Leu Ile Tyr Leu Asp Lys Val Ser Asn Gln Thr Leu Ser Leu
 885 890 895
 Ser Phe Phe Val Val Gln Asp Ile Glu Val Arg Asp Leu Lys Pro Ala
 900 905 910
 Ile Ile Lys Val Tyr Asp Tyr Tyr Glu Thr Asn Glu Phe Ala Ile Ala
 915 920 925
 Glu Tyr His Ala Pro Cys Ser Lys Asp Pro Gly Asn Ala
 930 935 940

<210> 40
 <211> 373
 <212> PRT
 <213> Mus musculus

<400> 40
 Met Ser Thr Asp Cys Ala Gly Asn Ser Thr Cys Pro Val Asn Ser Thr
 1 5 10 15

Glu Glu Asp Pro Pro Val Gly Met Glu Gly His Ala Asn Leu Lys Leu
 20 25 30

Leu Phe Thr Val Leu Ser Ala Val Met Val Gly Leu Val Met Phe Ser
 35 40 45

Phe Gly Cys Ser Val Glu Ser Gln Lys Leu Trp Leu His Leu Arg Arg
 50 55 60

Pro Trp Gly Ile Ala Val Gly Leu Leu Ser Gln Phe Gly Leu Met Pro
 65 70 75 80

Leu Thr Ala Tyr Leu Leu Ala Ile Gly Phe Gly Leu Lys Pro Phe Gln
 85 90 95

 Ala Ile Ala Val Leu Met Met Gly Ser Cys Pro Gly Gly Thr Ile Ser
 100 105 110

 Asn Val Leu Thr Phe Trp Val Asp Gly Asp Met Asp Leu Ser Ile Ser
 115 120 125

 Met Thr Thr Cys Ser Thr Val Ala Ala Leu Gly Met Met Pro Leu Cys
 130 135 140

 Leu Tyr Ile Tyr Thr Arg Ser Trp Thr Leu Thr Gln Asn Leu Val Ile
 145 150 155 160

 Pro Tyr Gln Ser Ile Gly Ile Thr Leu Val Ser Leu Val Val Pro Val
 165 170 175

 Ala Ser Gly Val Tyr Val Asn Tyr Arg Trp Pro Lys Gln Ala Thr Val
 180 185 190

 Ile Leu Lys Val Gly Ala Ile Leu Gly Gly Met Leu Leu Val Val
 195 200 205

 Ala Val Thr Gly Met Val Leu Ala Lys Gly Trp Asn Thr Asp Val Thr
 210 215 220

 Leu Leu Val Ile Ser Cys Ile Phe Pro Leu Val Gly His Val Thr Gly
 225 230 235 240

 Phe Leu Leu Ala Phe Leu Thr His Gln Ser Trp Gln Arg Cys Arg Thr
 245 250 255

 Ile Ser Ile Glu Thr Gly Ala Gln Asn Ile Gln Leu Cys Ile Ala Met
 260 265 270

 Leu Gln Leu Ser Phe Ser Ala Glu Tyr Leu Val Gln Leu Leu Asn Phe
 275 280 285

 Ala Leu Ala Tyr Gly Leu Phe Gln Val Leu His Gly Leu Leu Ile Val
 290 295 300

 Ala Ala Tyr Gln Ala Tyr Lys Arg Arg Gln Lys Ser Lys Cys Arg Arg
 305 310 315 320

 Gln His Pro Asp Cys Pro Asp Val Cys Tyr Glu Lys Gln Pro Arg Glu
 325 330 335

 Thr Ser Ala Phe Leu Asp Lys Gly Asp Glu Ala Ala Val Thr Leu Gly
 340 345 350

 Pro Val Gln Pro Glu Gln His His Arg Ala Ala Glu Leu Thr Ser His
 355 360 365

 Ile Pro Ser Cys Glu
 370

<210> 41
 <211> 347
 <212> PRT
 <213> Oryctolagus cuniculus

<400> 41
 Met Ser Asn Leu Thr Val Gly Cys Leu Ala Asn Ala Thr Val Cys Glu
 1 5 10 15

Gly Ala Ser Cys Val Ala Pro Glu Ser Asn Phe Asn Ala Ile Leu Ser
 20 25 30

Val Val Leu Ser Thr Val Leu Thr Ile Leu Leu Ala Leu Val Met Phe
 35 40 45

Ser Met Gly Cys Asn Val Glu Ile Lys Lys Phe Leu Gly His Ile Arg
 50 55 60

Arg Pro Trp Gly Ile Phe Ile Gly Phe Leu Cys Gln Phe Gly Ile Met
 65 70 75 80

Pro Leu Thr Gly Phe Val Leu Ala Val Ala Phe Gly Ile Met Pro Ile
 85 90 95

Gln Ala Val Val Val Leu Ile Met Gly Cys Cys Pro Gly Gly Thr Ala
 100 105 110

Ser Asn Ile Leu Ala Tyr Trp Val Asp Gly Asp Met Asp Leu Ser Val
 115 120 125

Ser Met Thr Thr Cys Ser Thr Leu Leu Ala Leu Gly Met Met Pro Leu
 130 135 140

Cys Leu Tyr Val Tyr Thr Lys Met Trp Val Asp Ser Gly Thr Ile Val
 145 150 155 160

Ile Pro Tyr Asp Asn Ile Gly Thr Ser Leu Val Ala Leu Val Val Pro
 165 170 175

Val Ser Ile Gly Met Phe Val Asn His Lys Trp Pro Gln Lys Ala Lys
 180 185 190

Ile Ile Leu Lys Val Gly Ser Ile Ala Gly Ala Val Leu Ile Val Leu
 195 200 205

Ile Ala Val Val Gly Gly Ile Leu Tyr Gln Ser Ala Trp Ile Ile Glu
 210 215 220

Pro Lys Leu Trp Ile Ile Gly Thr Ile Phe Pro Met Ala Gly Tyr Ser
 225 230 235 240

Leu Gly Phe Phe Leu Ala Arg Ile Ala Gly Gln Pro Trp Tyr Arg Cys
 245 250 255

Arg Thr Val Ala Leu Glu Thr Gly Met Gln Asn Thr Gln Leu Cys Ser

260	265	270
Thr Ile Val Gln Leu Ser Phe Ser Pro Glu Asp Leu Thr Tyr Val Phe		
275	280	285
Thr Phe Pro Leu Ile Tyr Ser Ile Phe Gln Ile Ala Phe Ala Ala Ile		
290	295	300
Phe Leu Gly Ile Tyr Val Ala Tyr Arg Lys Cys His Gly Lys Asn Asp		
305	310	315
Ala Glu Phe Pro Asp Ile Lys Asp Thr Lys Thr Glu Pro Glu Ser Ser		
325	330	335
Phe His Gln Met Asn Gly Gly Phe Gln Pro Glu		
340	345	
<210> 42		
<211> 348		
<212> PRT		
<213> Rattus norvegicus		
<400> 42		
Met Asp Asn Ser Ser Val Cys Ser Pro Asn Ala Thr Phe Cys Glu Gly		
1	5	10
15		
Asp Ser Cys Leu Val Thr Glu Ser Asn Phe Asn Ala Ile Leu Ser Thr		
20	25	30
Val Met Ser Thr Val Leu Thr Ile Leu Leu Ala Met Val Met Phe Ser		
35	40	45
Met Gly Cys Asn Val Glu Ile Asn Lys Phe Leu Gly His Ile Lys Arg		
50	55	60
Pro Trp Gly Ile Phe Val Gly Phe Leu Cys Gln Phe Gly Ile Met Pro		
65	70	75
80		
Leu Thr Gly Phe Ile Leu Ser Val Ala Ser Gly Ile Leu Pro Val Gln		
85	90	95
Ala Val Val Val Leu Ile Met Gly Cys Cys Pro Gly Gly Thr Gly Ser		
100	105	110
Asn Ile Leu Ala Tyr Trp Ile Asp Gly Asp Met Asp Leu Ser Val Ser		
115	120	125
Met Thr Thr Cys Ser Thr Leu Leu Ala Leu Gly Met Met Pro Leu Cys		
130	135	140
Leu Phe Ile Tyr Thr Lys Met Trp Val Asp Ser Gly Thr Ile Val Ile		
145	150	155
160		
Pro Tyr Asp Ser Ile Gly Ile Ser Leu Val Ala Leu Val Ile Pro Val		
165	170	175

Ser Ile Gly Met Phe Val Asn His Lys Trp Pro Gln Lys Ala Lys Ile
 180 185 190
 Ile Leu Lys Ile Gly Ser Ile Ala Gly Ala Ile Leu Ile Val Leu Ile
 195 200 205
 Ala Val Val Gly Gly Ile Leu Tyr Gln Ser Ala Trp Ile Ile Glu Pro
 210 215 220
 Lys Leu Trp Ile Ile Gly Thr Ile Phe Pro Ile Ala Gly Tyr Ser Leu
 225 230 235 240
 Gly Phe Phe Leu Ala Arg Leu Ala Gly Gln Pro Trp Tyr Arg Cys Arg
 245 250 255
 Thr Val Ala Leu Glu Thr Gly Met Gln Asn Thr Gln Leu Cys Ser Thr
 260 265 270
 Ile Val Gln Leu Ser Phe Ser Pro Glu Asp Leu Asn Leu Val Phe Thr
 275 280 285
 Phe Pro Leu Ile Tyr Thr Val Phe Gln Leu Val Phe Ala Ala Ile Ile
 290 295 300
 Leu Gly Met Tyr Val Thr Tyr Lys Lys Cys His Gly Lys Asn Asp Ala
 305 310 315 320
 Glu Phe Leu Glu Lys Thr Asp Asn Asp Met Asp Pro Met Pro Ser Phe
 325 330 335
 Gln Glu Thr Asn Lys Gly Phe Gln Pro Asp Glu Lys
 340 345

<210> 43

<211> 348

<212> PRT

<213> Mus musculus

<400> 43

Met Asp Asn Ser Ser Val Cys Pro Pro Asn Ala Thr Val Cys Glu Gly
 1 5 10 15

Asp Ser Cys Val Val Pro Glu Ser Asn Phe Asn Ala Ile Leu Asn Thr
 20 25 30

Val Met Ser Thr Val Leu Thr Ile Leu Leu Ala Met Val Met Phe Ser
 35 40 45

Met Gly Cys Asn Val Glu Val His Lys Phe Leu Gly His Ile Lys Arg
 50 55 60

Pro Trp Gly Ile Phe Val Gly Phe Leu Cys Gln Phe Gly Ile Met Pro
 65 70 75 80

Leu Thr Gly Phe Ile Leu Ser Val Ala Ser Gly Ile Leu Pro Val Gln
 85 90 95

Ala Val Val Val Leu Ile Met Gly Cys Cys Pro Gly Gly Thr Gly Ser
 100 105 110
 Asn Ile Leu Ala Tyr Trp Ile Asp Gly Asp Met Asp Leu Ser Val Ser
 115 120 125
 Met Thr Thr Cys Ser Thr Leu Leu Ala Leu Gly Met Met Pro Leu Cys
 130 135 140
 Leu Phe Val Tyr Thr Lys Met Trp Val Asp Ser Gly Thr Ile Val Ile
 145 150 155 160
 Pro Tyr Asp Ser Ile Gly Ile Ser Leu Val Ala Leu Val Ile Pro Val
 165 170 175
 Ser Phe Gly Met Phe Val Asn His Lys Trp Pro Gln Lys Ala Lys Ile
 180 185 190
 Ile Leu Lys Ile Gly Ser Ile Thr Gly Val Ile Leu Ile Val Leu Ile
 195 200 205
 Ala Val Ile Gly Gly Ile Leu Tyr Gln Ser Ala Trp Ile Ile Glu Pro
 210 215 220
 Lys Leu Trp Ile Ile Gly Thr Ile Phe Pro Ile Ala Gly Tyr Ser Leu
 225 230 235 240
 Gly Phe Phe Leu Ala Arg Leu Ala Gly Gln Pro Trp Tyr Arg Cys Arg
 245 250 255
 Thr Val Ala Leu Glu Thr Gly Met Gln Asn Thr Gln Leu Cys Ser Thr
 260 265 270
 Ile Val Gln Leu Ser Phe Ser Pro Glu Asp Leu Asn Leu Val Phe Thr
 275 280 285
 Phe Pro Leu Ile Tyr Thr Val Phe Gln Leu Val Phe Ala Ala Val Ile
 290 295 300
 Leu Gly Ile Tyr Val Thr Tyr Arg Lys Cys Tyr Gly Lys Asn Asp Ala
 305 310 315 320
 Glu Phe Leu Glu Lys Thr Asp Asn Glu Met Asp Ser Arg Pro Ser Phe
 325 330 335
 Asp Glu Thr Asn Lys Gly Phe Gln Pro Asp Glu Lys
 340 345

 <210> 44
 <211> 348
 <212> PRT
 <213> Mus musculus

 <400> 44
 Met Asp Asn Ser Ser Val Cys Pro Pro Asn Ala Thr Val Cys Glu Gly

1	5	10	15
Asp Ser Cys Val Val Pro Glu Ser Asn Phe Asn Ala Ile Leu Asn Thr			
20	25	30	
Val Met Ser Thr Val Leu Thr Ile Leu Leu Ala Met Val Met Phe Ser			
35	40	45	
Met Gly Cys Asn Val Glu Val His Lys Phe Leu Gly His Ile Lys Arg			
50	55	60	
Pro Trp Gly Ile Phe Val Gly Phe Leu Cys Gln Phe Gly Ile Met Pro			
65	70	75	80
Leu Thr Gly Phe Ile Leu Ser Val Ala Ser Gly Ile Leu Pro Val Gln			
85	90	95	
Ala Val Val Val Leu Ile Met Gly Cys Cys Pro Gly Gly Thr Gly Ser			
100	105	110	
Asn Ile Leu Ala Tyr Trp Ile Asp Gly Asp Met Asp Leu Ser Val Ser			
115	120	125	
Met Thr Thr Cys Ser Thr Leu Leu Ala Leu Gly Met Met Pro Leu Cys			
130	135	140	
Leu Phe Val Tyr Thr Lys Met Trp Val Asp Ser Gly Thr Ile Val Ile			
145	150	155	160
Pro Tyr Asp Ser Ile Gly Ile Ser Leu Val Ala Leu Val Ile Pro Val			
165	170	175	e
Ser Phe Gly Met Phe Val Asn His Lys Trp Pro Gln Lys Ala Lys Ile			
180	185	190	
Ile Leu Lys Ile Gly Ser Ile Thr Gly Val Ile Leu Ile Val Leu Ile			
195	200	205	
Ala Val Ile Gly Gly Ile Leu Tyr Gln Ser Ala Trp Ile Ile Glu Pro			
210	215	220	
Lys Leu Trp Ile Ile Gly Thr Ile Phe Pro Ile Ala Gly Tyr Ser Leu			
225	230	235	240
Gly Phe Phe Leu Ala Arg Leu Ala Gly Gln Pro Trp Tyr Arg Cys Arg			
245	250	255	
Thr Val Ala Leu Glu Thr Gly Met Gln Asn Thr Gln Leu Cys Ser Thr			
260	265	270	
Ile Val Gln Leu Ser Phe Ser Pro Glu Asp Leu Asn Leu Val Phe Thr			
275	280	285	
Phe Pro Leu Ile Tyr Thr Val Phe Gln Leu Val Phe Ala Ala Val Ile			
290	295	300	
Leu Gly Ile Tyr Val Thr Tyr Arg Lys Cys Tyr Gly Lys Asn Asp Ala			

305	310	315	320
Glu Phe Leu Glu Lys Thr Asp Asn Glu Met Asp Ser Arg Pro Ser Phe			
325		330	335
Asp Glu Thr Asn Lys Gly Phe Gln Pro Asp Glu Lys			
340		345	
<210> 45			
<211> 348			
<212> PRT			
<213> Homo sapiens			
<400> 45			
Met Asp Asn Ser Ser Ile Cys Asn Pro Asn Ala Thr Ile Cys Glu Gly			
1	5	10	15
Asp Ser Cys Ile Ala Pro Glu Ser Asn Phe Asn Ala Ile Leu Ser Val			
20		25	30
Val Met Ser Thr Val Leu Thr Ile Leu Leu Ala Leu Val Met Phe Ser			
35		40	45
Met Gly Cys Asn Val Glu Leu His Lys Phe Leu Gly His Leu Arg Arg			
50		55	60
Pro Trp Gly Ile Val Val Gly Phe Leu Cys Gln Phe Gly Ile Met Pro			
65		70	75
		80	
Leu Thr Gly Phe Val Leu Ser Val Ala Phe Gly Ile Leu Pro Val Gln			
85		90	95
Ala Val Val Val Leu Ile Gln Gly Cys Cys Pro Gly Gly Thr Ala Ser			
100		105	110
Asn Ile Leu Ala Tyr Trp Val Asp Gly Asp Met Asp Leu Ser Val Ser			
115		120	125
Met Thr Thr Cys Ser Thr Leu Leu Ala Leu Gly Met Met Pro Leu Cys			
130		135	140
Leu Phe Ile Tyr Thr Lys Met Trp Val Asp Ser Gly Thr Ile Val Ile			
145		150	155
		160	
Pro Tyr Asp Ser Ile Gly Thr Ser Leu Val Ala Leu Val Ile Pro Val			
165		170	175
Ser Ile Gly Met Tyr Val Asn His Lys Trp Pro Gln Lys Ala Lys Ile			
180		185	190
Ile Leu Lys Ile Gly Ser Ile Ala Gly Ala Ile Leu Ile Val Leu Ile			
195		200	205
Ala Val Val Gly Gly Ile Leu Tyr Gln Ser Ala Trp Thr Ile Glu Pro			
210		215	220

Lys Leu Trp Ile Ile Gly Thr Ile Tyr Pro Ile Ala Gly Tyr Gly Leu
225 230 235 240

Gly Phe Phe Leu Ala Arg Ile Ala Gly Gln Pro Trp Tyr Arg Cys Arg
245 250 255

Thr Val Ala Leu Glu Thr Gly Leu Gln Asn Thr Gln Leu Cys Ser Thr
260 265 270

Ile Val Gln Leu Ser Phe Ser Pro Glu Asp Leu Asn Leu Val Phe Thr
275 280 285

Phe Pro Leu Ile Tyr Ser Ile Phe Gln Ile Ala Phe Ala Ala Ile Leu
290 295 300

Leu Gly Ala Tyr Val Ala Tyr Lys Lys Cys His Gly Lys Asn Asn Thr
305 310 315 320

Glu Leu Gln Glu Lys Thr Asp Asn Glu Met Glu Pro Arg Ser Ser Phe
325 330 335

Gln Glu Thr Asn Lys Gly Phe Gln Pro Asp Glu Lys
340 345

<210> 46

<211> 272

<212> PRT

<213> Homo sapiens

<400> 46

Met Ala Ala Lys Val Phe Glu Ser Ile Gly Lys Phe Gly Leu Ala Leu
1 5 10 15

Ala Val Ala Gly Gly Val Val Asn Ser Ala Leu Tyr Asn Val Asp Ala
20 25 30

Gly His Arg Ala Val Ile Phe Asp Arg Phe Arg Gly Val Gln Asp Ile
35 40 45

Val Val Gly Glu Gly Thr His Phe Leu Ile Pro Trp Val Gln Lys Pro
50 55 60

Ile Ile Phe Asp Cys Arg Ser Arg Pro Arg Asn Val Pro Val Ile Thr
65 70 75 80

Gly Ser Lys Asp Leu Gln Asn Val Asn Ile Thr Leu Arg Ile Leu Phe
85 90 95

Arg Pro Val Ala Ser Gln Leu Pro Arg Ile Phe Thr Ser Ile Gly Glu
100 105 110

Asp Tyr Asp Glu Arg Val Leu Pro Ser Ile Thr Thr Glu Ile Leu Lys
115 120 125

Ser Val Val Ala Arg Phe Asp Ala Gly Glu Leu Ile Thr Gln Arg Glu
130 135 140

Leu	Val	Ser	Arg	Gln	Val	Ser	Asp	Asp	Leu	Thr	Glu	Arg	Ala	Ala	Thr
145					150					155					160
Phe	Gly	Leu	Ile	Leu	Asp	Asp	Val	Ser	Leu	Thr	His	Leu	Thr	Phe	Gly
					165				170						175
Lys	Glu	Phe	Thr	Glu	Ala	Val	Glu	Ala	Lys	Gln	Val	Ala	Gln	Gln	Glu
					180				185						190
Ala	Glu	Arg	Ala	Arg	Phe	Val	Val	Glu	Lys	Ala	Glu	Gln	Gln	Lys	Lys
					195			200							205
Ala	Ala	Ile	Ile	Ser	Ala	Glu	Gly	Asp	Ser	Lys	Ala	Ala	Glu	Leu	Ile
					210			215							220
Ala	Asn	Ser	Leu	Ala	Thr	Ala	Gly	Asp	Gly	Leu	Ile	Glu	Leu	Arg	Lys
					225			230			235				240
Leu	Glu	Ala	Ala	Glu	Asp	Ile	Ala	Tyr	Gln	Leu	Ser	Arg	Ser	Arg	Asn
					245			250			255				255
Ile	Thr	Tyr	Leu	Pro	Ala	Gly	Gln	Ser	Val	Leu	Leu	Gln	Leu	Pro	Gln
					260			265							270

<210> 47
<211> 272
<212> PRT
<213> Rattus norvegicus

<400> 47															
Met	Ala	Ala	Lys	Val	Phe	Glu	Ser	Ile	Gly	Lys	Phe	Gly	Leu	Ala	Leu
1				5					10						15
Ala	Val	Ala	Gly	Gly	Val	Val	Asn	Ser	Ala	Leu	Tyr	Asn	Val	Asp	Ala
					20				25						30
Gly	His	Arg	Ala	Val	Ile	Phe	Asp	Arg	Phe	Arg	Gly	Val	Gln	Asp	Ile
					35			40							45
Val	Val	Gly	Glu	Gly	Thr	His	Phe	Leu	Ile	Pro	Trp	Val	Gln	Lys	Pro
					50			55			60				
Ile	Ile	Phe	Asp	Cys	Arg	Ser	Arg	Pro	Arg	Asn	Val	Pro	Val	Ile	Thr
					65			70			75				80
Gly	Ser	Lys	Asp	Leu	Gln	Asn	Val	Asn	Ile	Thr	Leu	Arg	Ile	Leu	Phe
					85				90						95
Arg	Pro	Val	Ala	Ser	Gln	Leu	Pro	Arg	Ile	Tyr	Thr	Ser	Ile	Gly	Glu
					100			105							110
Asp	Tyr	Asp	Glu	Arg	Val	Leu	Pro	Ser	Ile	Thr	Thr	Glu	Ile	Leu	Lys

115	120	125
Ser Val Val Ala Arg Phe Asp Ala Gly Glu Leu Ile Thr Gln Arg Glu		
130	135	140
Leu Val Ser Arg Gln Val Ser Asp Asp Leu Thr Glu Arg Ala Ala Thr		
145	150	155
Phe Gly Leu Ile Leu Asp Asp Val Ser Leu Thr His Leu Thr Phe Gly		
165	170	175
Lys Glu Phe Thr Glu Ala Val Glu Ala Lys Gln Val Ala Gln Gln Glu		
180	185	190
Ala Glu Arg Ala Arg Phe Val Val Glu Lys Ala Glu Gln Gln Lys Lys		
195	200	205
Ala Ala Ile Ile Ser Ala Glu Gly Asp Ser Lys Ala Ala Glu Leu Ile		
210	215	220
Ala Asn Ser Leu Ala Thr Ala Gly Asp Gly Leu Ile Glu Leu Arg Lys		
225	230	235
Leu Glu Ala Ala Glu Asp Ile Ala Tyr Gln Leu Ser Arg Ser Arg Asn		
245	250	255
Ile Thr Tyr Leu Pro Ala Gly Gln Ser Val Leu Leu Gln Leu Pro Gln		
260	265	270

<210> 48
 <211> 1798
 <212> PRT
 <213> Drosophila melanogaster

<400> 48		
Met Glu Met Arg Glu Val Leu Ser Arg Glu Gly Arg Glu Ala Lys Asn		
1	5	10
15		
Leu Leu Val Tyr Gln Phe Cys Asp Glu Thr Thr Ser Ser Gly Ala Thr		
20	25	30
Ser Gly Phe Gly Ser Thr Gly Gly Asp Val Gly Gly Ser Gly Gly		
35	40	45
Asp Gly Pro Ala Val Gly Ser Gly Gly Val Leu Leu Asn Gly Asp Cys		
50	55	60
Tyr Arg Lys Pro Pro Met Val Pro Pro Lys Ser Pro Asn Gly Thr Pro		
65	70	75
80		
Lys Asn Cys Gln Ser Pro Thr Ser Pro Arg Leu Lys Ser Ser Ala Ser		
85	90	95

Val Gly Cys Gly Gly Ser Ser Gly Gly Pro Arg Val Arg Ser Ala
 100 105 110
 Ser Thr Gly Arg Asp Lys Lys Ser Glu Leu Gln Ala Arg Tyr Trp Ala
 115 120 125
 Leu Leu Phe Gly Asn Leu Gln Arg Ala Ile Asn Glu Ile Tyr Gln Thr
 130 135 140
 Val Glu Cys Tyr Glu Asn Ile Ser Ser Cys Gln Glu Thr Ile Leu Val
 145 150 155 160
 Leu Glu Asn Tyr Val Arg Asp Phe Lys Ala Leu Cys Glu Trp Phe Lys
 165 170 175
 Val Ser Trp Asp Tyr Glu Ser Arg Pro Leu Gln Gln Arg Pro Gln Ser
 180 185 190
 Leu Ala Trp Glu Val Arg Lys Ser Asn Pro Thr Pro Arg Val Arg Thr
 195 200 205
 Arg Ser Leu Cys Ser Pro Asn Asn Ser Gly Lys Ser Ser Pro Ala Leu
 210 215 220
 Phe Pro Gly Thr Gln Ser Gly Glu Thr Ser Pro Phe Cys Asp Asn Gly
 225 230 235 240
 Gln Ile Ser Pro Arg Lys Leu Leu Arg Ala Tyr Asp Gln Val Pro Lys
 245 250 255
 Gly Ala Met Arg Leu Asn Val Arg Glu Leu Phe Ala Ala Ser Lys Arg
 260 265 270
 Ala Thr Gln Gly Ser Ser Gln Ser Asp Asn Met Glu Gly Pro Leu Asp
 275 280 285
 Leu Ser Gly Asp Lys Ser Asn Phe Val Leu Arg Ser Thr Gln Tyr Ala
 290 295 300
 Gln Thr Asp Leu Glu Asp Pro His Leu Thr Leu Ala Asp Val Arg Glu
 305 310 315 320
 Lys Met Arg Met Glu Ala Glu Glu Arg Glu Ala Gln Asn Arg Ile Glu
 325 330 335
 Asn Glu Ala Leu Glu Glu Val Thr Ile Pro Ile Asp Asn Glu Asp Ala
 340 345 350
 Thr Glu Ser Leu Asn Lys Gln Glu Pro Ser Ser Leu Glu Leu Pro Ile
 355 360 365
 His Asn Val Ala Asp Leu Ser Lys Glu Pro Glu Leu Met Glu Ala Ala
 370 375 380
 Ser Glu Ala Thr Ala Leu Glu Met Thr Val Ala Ser Leu Glu Ser Met
 385 390 395 400

Glu Asn Ala Leu Leu Asn Gln Gln Ala Asn Lys Glu Pro Thr Pro Pro
 405 410 415

 Ser Thr Val Ile Lys Pro Leu Ala Glu Ile Leu Lys Lys Pro Gln Pro
 420 425 430

 Leu Asn Pro Leu Ser Gly Asn Asn Val Gln Asn Ser Pro Leu Lys Tyr
 435 440 445

 Ser Ser Val Leu Asn Arg Pro Ser Lys Lys Met Ile Pro Pro Pro Gly
 450 455 460

 Gly Val Ala Ala Gln Lys Thr Ile Ser Thr Lys Pro Gly Leu Val Lys
 465 470 475 480

 Pro Asn Leu Thr Thr Val Asn Gly Leu Arg Ser Thr Lys Thr Ala
 485 490 495

 Thr Ala Pro Pro Ala Ile Lys Thr Thr Gly Arg Ser Gly Leu Gln Arg
 500 505 510

 His Pro Arg Pro Ser Ser Lys Thr Glu Cys Tyr Gly Pro Pro Asn Asn
 515 520 525

 Val Ala Ser Arg Leu Ser Ala Arg Ser Arg Thr Ile Asn Thr Leu Lys
 530 535 540

 Ala Glu Asn Gln His Ser Glu Pro Lys Gln Ile Gln Pro Pro Thr Asp
 545 550 555 560

 Ala Asp Asp Gly Trp Leu Thr Val Lys Asn Arg Arg Arg Thr Ser Met
 565 570 575

 His Trp Ala Asn Arg Phe Asn Gln Pro Thr Gly Tyr Ala Ser Leu Pro
 580 585 590

 Thr Leu Ala Leu Leu Asn Glu Gln Gln Lys Glu Gln Glu His Lys Glu
 595 600 605

 Lys Gln Lys Gly Glu Asp Asp Gly Lys Val Ile Val Lys Thr Ile Ser
 610 615 620

 Ala Lys Thr Lys Ala Pro Ile Glu Val Ala Lys Ala Lys Ala Lys Thr
 625 630 635 640

 Ser Ile Val Ile Thr Arg Pro Glu Ile Lys Asn Ala Lys Ala Lys Val
 645 650 655

 Asn Ser Phe Pro Val Gln Lys Ser Asn Thr Asn Gln Val Lys Lys Pro
 660 665 670

 Glu Lys Gln Glu Lys Ser Asp Thr Thr Ala Pro Ala Ala Ile Ala Ser
 675 680 685

 Ser Arg Leu Lys Met Thr Ser Leu His Lys Glu Tyr Met Arg Ser Glu
 690 695 700

Lys Asn Ala Leu Arg Lys Leu Gln Gln Lys Glu Gln Gly Asn Gln Gln
 705 710 715 720

His Asn Ser Ser Ser Ser Ala Glu Thr Val Val Glu Ser Cys Asn
 725 730 735 . . .

Glu Asp His Ser Lys Ile Asp Ile Lys Ile Gln Thr Asn Cys Glu Phe
 740 745 750 . . .

Ser Lys Thr Ile Gly Glu Leu Tyr Glu Ser Ile Ala His Cys Lys Leu
 755 760 765 . . .

Pro Ser Gly Ser Leu Lys Thr Asn Ala Ser Thr Leu Ser Ala Cys Asp
 770 775 780 . . .

Glu Asn Glu Glu Gln Asn Thr Asp Asp Asn Glu Glu Glu Arg Asn Glu
 785 790 795 800 . . .

Arg Ile Leu Gly Glu Val Gln Glu Ser Leu Glu Arg Gln Ile Arg Glu
 805 810 815 . . .

Leu Glu Gln Thr Glu Ile Asp Val Asp Thr Glu Thr Asp Glu Thr Asp
 820 825 830 . . .

Cys Glu Val Gln Leu Glu Glu Gln Asp Asp Gly Val Asp Gly Leu Glu
 835 840 845 . . .

Met Gly Ser Gly Asp Asp Ser Ala Val Phe Val Thr Met Ser Asp Asp
 850 855 860 . . .

Glu Asn Ala Ser Leu Glu Leu Arg Tyr Gln Ala Leu Leu Ser Asp Met
 865 870 875 880 . . .

Ser Trp Asn Glu Arg Ala Glu Ala Leu Ala Thr Leu Gln Ala Tyr Val
 885 890 895 . . .

Ala Arg His Pro Gly Arg Ala Gln Glu Leu His Gln Lys Leu Ser Ser
 900 905 910 . . .

Pro Ser Arg Arg Arg Ser Leu Gln Glu Thr Leu Lys Lys Tyr Gln Ala
 915 920 925 . . .

Lys Gln Ala Arg Ala Gln Gln Lys Arg Asn Leu Leu Gln Gln Glu Lys
 930 935 940 . . .

Ala Ala Lys Leu Gln Gln Leu Phe Ser Arg Val Glu Asp Val Lys Ala
 945 950 955 960 . . .

Ala Lys Asn Gln Ile Ile Glu Asp Lys Arg Gln Lys Met Gln Gly Arg
 965 970 975 . . .

Leu Gln Arg Ala Ala Glu Asn Arg Glu Gln Tyr Leu Lys Gln Ile Ile
 980 985 990 . . .

Glu Lys Ala His Asp Glu Glu Lys Lys Leu Lys Glu Ile Asn Phe Ile
 995 1000 1005 . . .

Lys Asn Ile Glu Ala Gln Asn Lys Arg Leu Asp Leu Leu Glu Ser Ser
1010 1015 1020

Lys Glu Thr Glu Gly Arg Leu Gln Asp Leu Glu Gln Glu Arg Gln Lys
1025 1030 1035 1040

Arg Val Glu Glu Lys Leu Ala Lys Glu Ala Ala Val Glu Arg Arg Arg
1045 1050 1055

Gln Ala Leu Glu Lys Glu Arg Leu Leu Lys Leu Glu Lys Met Asn Glu
1060 1065 1070

Thr Arg Leu Glu Lys Glu Gln Arg Ile Gly Lys Met Gln Glu Gln Lys
1075 1080 1085

Glu Lys Gln Arg Gln Ala Leu Ala Arg Glu Lys Ala Arg Asp Arg Glu
1090 1095 1100

Glu Arg Leu Leu Ala Leu Gln Val Gln Gln Gln Thr Thr Glu Glu
1105 1110 1115 1120

Leu Gln Arg Lys Ile Leu Gln Lys Gln Met Glu Ser Ala Arg Arg His
1125 1130 1135

Glu Glu Asn Ile Glu His Ile Arg Gln Arg Ala Leu Glu Leu Thr Ile
1140 1145 1150

Pro Thr Arg Gln Ala Asp Glu Gly Arg Gly Asp Gln Asp Val Ser Glu
1155 1160 1165

Asp Ile Leu Asn Gly Asn Ala Thr Ser Thr Thr Asn Glu Asp Cys Asp
1170 1175 1180

Leu Ser Ser Ser Leu Ser Glu Val Gly Gly Asn Asn Ala His Thr Arg
1185 1190 1195 1200

Ser Tyr Lys Lys Met Lys Lys Leu Lys Gln Arg Met Asn Gln Cys
1205 1210 1215

Ala Ala Glu Tyr Leu Glu Ser Leu Glu Ala Leu Pro Ala His Ala Arg
1220 1225 1230

Arg Asp Ser Thr Val Pro Lys Leu Leu Asn Leu Val Val Lys Gly Gly
1235 1240 1245

Gly Ala Gln Gly Leu Asp Arg Asn Leu Gly Asn Leu Leu Arg Val Ile
1250 1255 1260

Pro Lys Ala Gln Thr Leu Asp Phe Leu Ala Phe Leu Cys Met Asp Gly
1265 1270 1275 1280

Leu Gly Ile Leu Ala Asn His Val Ile Ser Lys Gly Met Asp Glu Asn
1285 1290 1295

Ser Glu Ile Ser Arg Lys Ser Val Tyr Leu Ala Ala Gln Leu Tyr Arg
1300 1305 1310

Asn Ala Cys Ser Val Cys Pro Gln Ile Ala Arg His Ala Leu Leu Gly
 1315 1320 1325

Asn Ser Ile Thr Val Leu Phe Asp Ala Ile Asn Lys Ser Phe Gln Val
 1330 1335 1340

Ile Leu Lys Ser Asn Arg Cys Thr Lys Glu Thr Phe Ser Asn Phe Trp
 1345 1350 1355 1360

Pro Pro Lys Met Leu His Asn Lys Ser Val Ala Arg Gln Ser Ser Arg
 1365 1370 1375

Leu Glu Ala Leu Ser Leu Pro Glu Glu Lys Ser Pro Gln His Pro Val
 1380 1385 1390

Glu Leu Ser Thr Glu Leu Met Leu Ala Cys Thr Glu Ala Leu Ser Ser
 1395 1400 1405

Ser Tyr Val Lys Lys Asn Thr His Pro Lys Val Pro Glu Arg Leu Pro
 1410 1415 1420

Asp Met Ile Asn Asp Cys Arg Phe His Trp Gln Asp Val Asn Lys Glu
 1425 1430 1435 1440

Asp Met Leu Ala Asp Glu Phe Arg Lys Tyr Lys Cys Tyr Glu Lys Asn
 1445 1450 1455

Pro Val Ile Ala Leu Pro His Pro Ser Leu Ser Ala Ser Leu Cys Arg
 1460 1465 1470

Ser Leu Ser Ala Thr Pro Leu Lys Ile Asn Leu His Gln Phe Leu Gly
 1475 1480 1485

Ser Gly Ile Leu Ile Leu Arg Leu Asn His His Arg His Pro Ala Thr
 1490 1495 1500

Gly Ala Ser Phe Ser Asp Ser Cys Cys Thr Cys Cys Pro Lys Leu Thr
 1505 1510 1515 1520

Thr Glu Ala Ala Val Ala Ala Val Ala Ala His Gln His Gln His Gln
 1525 1530 1535

Asn Gln Gln Gln Pro Asp Tyr Ala Val Ile Thr Gly Leu Ile Glu
 1540 1545 1550

Ile Leu Ser Arg Arg Ile Gln Lys Val Arg Glu Ser Ile Glu Ser Asn
 1555 1560 1565

Lys Ser Val Met Leu Ser Leu Leu Thr Thr Leu Gly Phe Leu Ser Arg
 1570 1575 1580

Phe Ile Asp Val Cys Gln Pro Gly Pro Ala Asp Pro Thr Arg Leu Leu
 1585 1590 1595 1600

Ser Ala Ala Lys Ser Thr Glu Leu Phe Gly Thr Val Ser Met Leu Tyr
 1605 1610 1615

Gly Cys Val Met Pro Met Gly Glu Cys Ile Pro Pro Arg Thr Thr Ala
 1620 1625 1630
 Leu Ala Ala Ser Thr Phe His Leu Tyr Val Ser Leu Ala Ser Leu Asp
 1635 1640 1645
 Val Asn Thr Phe Gln Glu Thr Leu Thr Val Glu Gly Pro Leu Ser Leu
 1650 1655 1660
 Lys Leu Leu Asp Val Met Thr Val Ile Leu Asn Cys Ser Leu Val Asn
 1665 1670 1675 1680
 Asp Gln Trp Thr Thr Asn Ser Glu Ser Cys Pro Met Leu Ile Asp Leu
 1685 1690 1695
 Val Ala Ser Met Ala Phe Phe Cys Val Asn Asn Arg Arg His Gln Asp
 1700 1705 1710
 Leu Leu Ile Ser Glu Gln Tyr Ala Val Ile Phe Lys Arg Met Ala Lys
 1715 1720 1725
 Leu Pro Thr Gln Phe Asn Pro Val Ile Tyr Pro Phe Leu Val Thr Val
 1730 1735 1740
 Ser Phe Asn Asn Pro Pro Ala Arg Glu Phe Leu Ser Lys Asp Phe Asp
 1745 1750 1755 1760
 Leu Thr Phe Leu Asp Glu Tyr Ser Lys Ser Glu Met Ala Gln Arg Asn
 1765 1770 1775
 Val Val Ile Lys Leu Ile Asn Ser Arg Thr Lys Asp Lys Ile Ser Ala
 1780 1785 1790
 Gly Asn Lys Lys Asn Ala
 1795

<210> 49
 <211> 274
 <212> PRT
 <213> Toxocara canis
 <400> 49
 Met Ala Gly Ala Gln Lys Leu Leu Gly Arg Leu Gly Gln Ile Gly Val
 1 5 10 15
 Ala Leu Ala Val Thr Gly Gly Val Val Gln Ser Ala Leu Tyr Asn Val
 20 25 30
 Asp Gly Gly Gln Arg Ala Val Ile Phe Asp Arg Phe Thr Gly Val Lys
 35 40 45
 Pro Asp Val Val Gly Glu Gly Thr His Phe Leu Ile Pro Trp Val Gln
 50 55 60
 Arg Pro Ile Ile Phe Asp Ile Arg Ser Thr Pro Arg Ala Ile Ser Thr
 65 70 75 80

Ile Thr Gly Ser Lys Asp Leu Gln Asn Val Ser Ile Thr Leu Arg Ile
 85 90 95

 Leu His Arg Pro Glu Pro Ser Lys Leu Pro Asn Ile Tyr Leu Asn Ile
 100 105 110

 Gly Gln Asp Tyr Ala Glu Arg Val Leu Pro Ser Ile Thr Asn Glu Val
 115 120 125

 Leu Lys Ala Val Val Ala Gln Phe Asp Ala His Glu Met Ile Thr Gln
 130 135 140

 Arg Glu Ser Val Ser His Arg Val Ser Val Glu Leu Ser Glu Arg Ala
 145 150 155 160

 Arg Gln Phe Gly Ile Leu Leu Asp Asp Ile Ala Ile Thr His Leu Ser
 165 170 175

 Phe Gly Arg Glu Phe Thr Glu Ala Val Glu Met Lys Gln Val Ala Gln
 180 185 190

 Gln Glu Ala Glu Lys Ala Arg Tyr Leu Val Glu Thr Ala Glu Gln Met
 195 200 205

 Lys Ile Ala Ala Ile Thr Thr Ala Glu Gly Asp Ala Gln Ala Ala Lys
 210 215 220

 Leu Leu Ala Gln Ala Phe Lys Asp Ala Gly Asp Gly Leu Ile Glu Leu
 225 230 235 240

 Arg Lys Ile Glu Ala Ala Glu Glu Ile Ala Glu Arg Met Ser Lys Thr
 245 250 255

 Arg Asn Val Ile Tyr Leu Pro Gly Asn Gln Asn Thr Leu Phe Asn Leu
 260 265 270

Pro Ala

<210> 50
 <211> 402
 <212> PRT
 <213> Caenorhabditis elegans

<400> 50
 Met Glu Lys Tyr Lys Asn Glu Leu Glu Ile Phe Lys Arg Met Tyr Phe
 1 5 10 15

 Lys Asn Tyr Pro Thr Ser Ser Lys Asp Glu Glu Ala Ala Val Ile
 20 25 30

 Gln Lys Gly Gly Glu Phe Ile Gln Glu Ile Leu Pro Thr Ile Ile Ser
 35 40 45

 Thr Ser Arg Ala Tyr Asp Thr Asn Gln Lys Ala Leu Leu Ala Glu

50	55	60	
Gly	Gly	Lys	
65	70	75	
Met	Tyr	Asn	
		Val	
Leu	Glu	Asp	
		Tyr	
		Asn	
		Glu	
		Thr	
		Ala	
		Glu	
		80	
Lys	Met	Leu	
	Ser	Lys	
	Ser	Val	
	Arg	Met	
	Asn	Pro	
		Lys	
		Asn	
		Ala	
		Asp	
		Ala	
	85	90	95
Trp	His	Glu	
Leu	Gly	Leu	
Cys	Val	Met	
		Lys	
		Arg	
		Arg	
		Asp	
		Leu	
		Glu	
		Phe	
100	105	110	
Ala	Gln	Ser	
Cys	Phe	Lys	
Ile	Ala	Leu	
Gly	Ile	Ser	
		Lys	
		Thr	
		Ala	
		Pro	
115	120	125	
Ile	Leu	Thr	
Ser	Leu	Ala	
Val	Ala	Met	
		Arg	
		Leu	
		Val	
		Ala	
		Leu	
		Glu	
130	135	140	
Pro	Glu	Pro	
Ala	Gln	Ala	
Glu	Ile	Arg	
		Thr	
		Lys	
		Ala	
		Met	
		Glu	
		Leu	
		Ile	
145	150	155	160
Ile	Glu	Ala	
Arg	Arg	Leu	
		Asp	
		Ser	
		Ala	
		Tyr	
		Gly	
		Pro	
		Ala	
		Asn	
		Ile	
		Ala	
165	170	175	
Phe	Ala	Thr	
Gly	Leu	Phe	
Tyr	Cys	Phe	
		Ser	
		Thr	
		Ala	
		Lys	
		Val	
		Glu	
180	185	190	
Leu	Lys	Phe	
Leu	Asp	Lys	
Val		Val	
Ile	Glu	Asn	
		Tyr	
		Lys	
		Ala	
		Leu	
		Glu	
195	200	205	
Cys	Glu	Leu	
Leu	Ser	Arg	
Thr	Asp	Pro	
		Gln	
		Val	
		Tyr	
		Ile	
		Asn	
		Met	
		Ala	
		Thr	
210	215	220	
Cys	Leu	Lys	
Phe	Met	Glu	
Lys	Tyr	Asp	
Glu	Ala	Leu	
		Ala	
		Val	
		Leu	
		Gln	
225	230	235	240
Lys	Ala	Val	
Glu	Tyr	Asp	
Pro	Arg	Asn	
Glu	Leu	Glu	
		Thr	
		Arg	
		Glu	
245	250	255	
Leu	Ala	Ser	
Phe	Val	Ser	
Tyr	Leu	Ser	
		Lys	
		Phe	
		Thr	
		Asp	
		Ala	
		Ile	
		Gln	
260	265	270	
Lys	Lys	Gly	
Lys	Met	Lys	
Ala	Lys	Arg	
		Met	
		Gln	
		Glu	
275	280	285	
Leu	Lys	Ser	
Ser	Ser	Asp	
Gly	Phe	Arg	
Ala	Lys	Ile	
		Ile	
		Gly	
		Asn	
		Ile	
290	295	300	
Gly	His	Asp	
Glu	Thr	Ile	
		Pro	
		Val	
		Ala	
		Leu	
		Val	
		Gly	
		Val	
		Asp	
		Ala	
		Ala	
305	310	315	320
Gly	Glu	Val	
Tyr	Gly	Ile	
		Thr	
		Ile	
		Tyr	
		Asn	
		Cys	
		Leu	
		Ser	
		Asn	
		Phe	
		Gly	
325	330	335	
Phe	Val	Ile	
Gly	Asp	Thr	
		Val	
		Thr	
		Ile	
		Ala	
		Lys	
		Pro	
		Asp	
		Phe	
		Arg	
		Glu	
340	345	350	
Ile	Lys	Asn	
Leu	Thr	Ile	
Pro	Ser	Asp	
		Pro	
		Glu	
		Ile	
		His	
		Val	
		Asp	
		Ser	

355

360

365

Val Lys Trp Ile Arg Val Ala Thr Pro Thr Gln Met Lys Lys Asn Gly
 370 375 380

Val Pro Leu Pro Glu Ser Val Leu Ala Arg Ala Val Ala Ser Thr Gln
 385 390 395 400

Thr Lys

<210> 51

<211> 711

<212> PRT

<213> Homo sapiens

<400> 51

Met Gly Trp Leu Pro Leu Leu Leu Leu Thr Gln Cys Leu Gly Val
 1 5 10 15

Pro Gly Gln Arg Ser Pro Leu Asn Asp Phe Gln Val Leu Arg Gly Thr
 20 25 30

Glu Leu Gln His Leu Leu His Ala Val Val Pro Gly Pro Trp Gln Glu
 35 40 45

Asp Val Ala Asp Ala Glu Glu Cys Ala Gly Arg Cys Gly Pro Leu Met
 50 55 60

Asp Cys Arg Ala Phe His Tyr Asn Val Ser Ser His Gly Cys Gln Leu
 65 70 75 80

Leu Pro Trp Thr Gln His Ser Pro His Thr Arg Leu Arg Arg Ser Gly
 85 90 95

Arg Cys Asp Leu Phe Gln Lys Asp Tyr Val Arg Thr Cys Ile Met
 100 105 110

Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala Thr Thr Val Gly Gly
 115 120 125

Leu Pro Cys Gln Ala Trp Ser His Lys Phe Pro Asn Asp His Lys Tyr
 130 135 140

Thr Pro Thr Leu Arg Asn Gly Leu Glu Glu Asn Phe Cys Arg Asn Pro
 145 150 155 160

Asp Gly Asp Pro Gly Gly Pro Trp Cys Tyr Thr Thr Asp Pro Ala Val
 165 170 175

Arg Phe Gln Ser Cys Gly Ile Lys Ser Cys Arg Glu Ala Ala Cys Val
 180 185 190

Trp Cys Asn Gly Glu Glu Tyr Arg Gly Ala Val Asp Arg Thr Glu Ser
 195 200 205

Gly Arg Glu Cys Gln Arg Trp Asp Leu Gln His Pro His Gln His Pro
 210 215 220

Phe Glu Pro Gly Lys Phe Leu Asp Gln Gly Leu Asp Asp Asn Tyr Cys
 225 230 235 240

Arg Asn Pro Asp Gly Ser Glu Arg Pro Trp Cys Tyr Thr Thr Asp Pro
 245 250 255

Gln Ile Glu Arg Glu Phe Cys Asp Leu Pro Arg Cys Gly Ser Glu Ala
 260 265 270

Gln Pro Arg Gln Glu Ala Thr Thr Val Ser Cys Phe Arg Gly Lys Gly
 275 280 285

Glu Gly Tyr Arg Gly Thr Ala Asn Thr Thr Ala Gly Val Pro Cys
 290 295 300

Gln Arg Trp Asp Ala Gln Ile Pro His Gln His Arg Phe Thr Pro Glu
 305 310 315 320

Lys Tyr Ala Cys Lys Asp Leu Arg Glu Asn Phe Cys Arg Asn Pro Asp
 325 330 335

Gly Ser Glu Ala Pro Trp Cys Phe Thr Leu Arg Pro Gly Met Arg Ala
 340 345 350

Ala Phe Cys Tyr Gln Ile Arg Arg Cys Thr Asp Asp Val Arg Pro Gln
 355 360 365

Asp Cys Tyr His Gly Ala Gly Glu Gln Tyr Arg Gly Thr Val Ser Lys
 370 375 380

Thr Arg Lys Gly Val Gln Cys Gln Arg Trp Ser Ala Glu Thr Pro His
 385 390 395 400

Lys Pro Gln Phe Thr Phe Thr Ser Glu Pro His Ala Gln Leu Glu Glu
 405 410 415

Asn Phe Cys Arg Asn Pro Asp Gly Asp Ser His Gly Pro Trp Cys Tyr
 420 425 430

Thr Met Asp Pro Arg Thr Pro Phe Asp Tyr Cys Ala Leu Arg Arg Cys
 435 440 445

Ala Asp Asp Gln Pro Pro Ser Ile Leu Asp Pro Pro Asp Gln Val Gln
 450 455 460

Phe Glu Lys Cys Gly Lys Arg Val Asp Arg Leu Asp Gln Arg Arg Ser
 465 470 475 480

Lys Leu Arg Val Val Gly Gly His Pro Gly Asn Ser Pro Trp Thr Val
 485 490 495

Ser Leu Arg Asn Arg Gln Gly Gln His Phe Cys Gly Gly Ser Leu Val
 500 505 510

Lys Glu Gln Trp Ile Leu Thr Ala Arg Gln Cys Phe Ser Ser Cys His
 515 520 525
 Met Pro Leu Thr Gly Tyr Glu Val Trp Leu Gly Thr Leu Phe Gln Asn
 530 535 540
 Pro Gln His Gly Glu Pro Ser Leu Gln Arg Val Pro Val Ala Lys Met
 545 550 555 560
 Val Cys Gly Pro Ser Gly Ser Gln Leu Val Leu Leu Lys Leu Glu Arg
 565 570 575
 Ser Val Thr Leu Asn Gln Arg Val Ala Leu Ile Cys Leu Pro Pro Glu
 580 585 590
 Trp Tyr Val Val Pro Pro Gly Thr Lys Cys Glu Ile Ala Gly Trp Gly
 595 600 605
 Glu Thr Lys Gly Thr Gly Asn Asp Thr Val Leu Asn Val Ala Leu Leu
 610 615 620
 Asn Val Ile Ser Asn Gln Glu Cys Asn Ile Lys His Arg Gly Arg Val
 625 630 635 640
 Arg Glu Ser Glu Met Cys Thr Glu Gly Leu Leu Ala Pro Val Gly Ala
 645 650 655
 Cys Glu Gly Asp Tyr Gly Gly Pro Leu Ala Cys Phe Thr His Asn Cys
 660 665 670
 Trp Val Leu Glu Gly Ile Ile Pro Asn Arg Val Cys Ala Arg Ser
 675 680 685
 Arg Trp Pro Ala Val Phe Thr Arg Val Ser Val Phe Val Asp Trp Ile
 690 695 700
 His Lys Val Met Arg Leu Gly
 705 710

<210> 52
 <211> 711
 <212> PRT
 <213> Homo sapiens

<400> 52
 Met Gly Trp Leu Pro Leu Leu Leu Leu Thr Gln Cys Leu Gly Val
 1 5 10 15
 Pro Gly Gln Arg Ser Pro Leu Asn Asp Phe Gln Val Leu Arg Gly Thr
 20 25 30
 Glu Leu Gln His Leu Leu His Ala Val Val Pro Gly Pro Trp Gln Glu
 35 40 45
 Asp Val Ala Asp Ala Glu Glu Cys Ala Gly Arg Cys Gly Pro Leu Met
 50 55 60

Asp Cys Arg Ala Phe His Tyr Asn Val Ser Ser His Gly Cys Gln Leu
65 70 75 80

Leu Pro Trp Thr Gln His Ser Pro His Thr Arg Leu Arg Arg Ser Gly
85 90 95

Arg Cys Asp Leu Phe Gln Lys Lys Asp Tyr Val Arg Thr Cys Ile Met
100 105 110

Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala Thr Thr Val Gly Gly
115 120 125

Leu Pro Cys Gln Ala Trp Ser His Lys Phe Pro Asn Asp His Lys Tyr
130 135 140

Thr Pro Thr Leu Arg Asn Gly Leu Glu Glu Asn Phe Cys Arg Asn Pro
145 150 155 160

Asp Gly Asp Pro Gly Gly Pro Trp Cys Tyr Thr Thr Asp Pro Ala Val
165 170 175

Arg Phe Gln Ser Cys Gly Ile Lys Ser Cys Arg Glu Ala Ala Cys Val
180 185 190

Trp Cys Asn Gly Glu Glu Tyr Arg Gly Ala Val Asp Arg Thr Glu Ser
195 200 205

Gly Arg Glu Cys Gln Arg Trp Asp Leu Gln His Pro His Gln His Pro
210 215 220

Phe Glu Pro Gly Lys Phe Leu Asp Gln Gly Leu Asp Asp Asn Tyr Cys
225 230 235 240

Arg Asn Pro Asp Gly Ser Glu Arg Pro Trp Cys Tyr Thr Thr Asp Pro
245 250 255

Gln Ile Glu Arg Glu Phe Cys Asp Leu Pro Arg Cys Gly Ser Glu Ala
260 265 270

Gln Pro Arg Gln Glu Ala Thr Thr Val Ser Cys Phe Arg Gly Lys Gly
275 280 285

Glu Gly Tyr Arg Gly Thr Ala Asn Thr Thr Ala Gly Val Pro Cys
290 295 300

Gln Arg Trp Asp Ala Gln Ile Pro His Gln His Arg Phe Thr Pro Glu
305 310 315 320

Lys Tyr Ala Cys Lys Asp Leu Arg Glu Asn Phe Cys Arg Asn Pro Asp
325 330 335

Gly Ser Glu Ala Pro Trp Cys Phe Thr Leu Arg Pro Gly Met Arg Ala
340 345 350

Ala Phe Cys Tyr Gln Ile Arg Arg Cys Thr Asp Asp Val Arg Pro Gln
355 360 365

Asp Cys Tyr His Gly Ala Gly Glu Gln Tyr Arg Gly Thr Val Ser Lys
370 375 380

Thr Arg Lys Gly Val Gln Cys Gln Arg Trp Ser Ala Glu Thr Pro His
385 390 395 400

Lys Pro Gln Phe Thr Phe Thr Ser Glu Pro His Ala Gln Leu Glu Glu
405 410 415

Asn Phe Cys Arg Asn Pro Asp Gly Asp Ser His Gly Pro Trp Cys Tyr
420 425 430

Thr Met Asp Pro Arg Thr Pro Phe Asp Tyr Cys Ala Leu Arg Arg Cys
435 440 445

Ala Asp Asp Gln Pro Pro Ser Ile Leu Asp Pro Pro Asp Gln Val Gln
450 455 460

Phe Glu Lys Cys Gly Lys Arg Val Asp Arg Leu Asp Gln Arg Arg Ser
465 470 475 480

Lys Leu Arg Val Val Gly Gly His Pro Gly Asn Ser Pro Trp Thr Val
485 490 495

Ser Leu Arg Asn Arg Gln Gly Gln His Phe Cys Gly Ser Leu Val
500 505 510

Lys Glu Gln Trp Ile Leu Thr Ala Arg Gln Cys Phe Ser Ser Cys His
515 520 525

Met Pro Leu Thr Gly Tyr Glu Val Trp Leu Gly Thr Leu Phe Gln Asn
530 535 540

Pro Gln His Gly Glu Pro Ser Leu Gln Arg Val Pro Val Ala Lys Met
545 550 555 560

Val Cys Gly Pro Ser Gly Ser Gln Leu Val Leu Leu Lys Leu Glu Arg
565 570 575

Ser Val Thr Leu Asn Gln Arg Val Ala Leu Ile Cys Leu Pro Pro Glu
580 585 590

Trp Tyr Val Val Pro Pro Gly Thr Lys Cys Glu Ile Ala Gly Trp Gly
595 600 605

Glu Thr Lys Gly Thr Gly Asn Asp Thr Val Leu Asn Val Ala Phe Leu
610 615 620

Asn Val Ile Ser Asn Gln Glu Cys Asn Ile Lys His Arg Gly Arg Val
625 630 635 640

Arg Glu Ser Glu Met Cys Thr Glu Gly Leu Leu Ala Pro Val Gly Ala
645 650 655

Cys Glu Gly Asp Tyr Gly Gly Pro Leu Ala Cys Phe Thr His Asn Cys
660 665 670

Trp Val Leu Glu Gly Ile Ile Pro Asn Arg Val Cys Ala Arg Ser
675 680 685

Arg Trp Pro Ala Val Phe Thr Arg Val Ser Val Phe Val Asp Trp Ile
690 695 700

His Lys Val Met Arg Leu Gly
705 710

<210> 53

<211> 711

<212> PRT

<213> Homo sapiens

<400> 53

Met Gly Trp Leu Pro Leu Leu Leu Leu Thr Gln Tyr Leu Gly Val
1 5 10 15

Pro Gly Gln Arg Ser Pro Leu Asn Asp Phe Gln Val Leu Arg Gly Thr
20 25 30

Glu Leu Gln His Leu Leu His Ala Val Val Pro Gly Pro Trp Gln Glu
35 40 45

Asp Val Ala Asp Ala Glu Glu Cys Ala Gly Arg Cys Gly Pro Leu Met
50 55 60

Asp Cys Arg Ala Phe His Tyr Asn Val Ser Ser His Gly Cys Gln Leu
65 70 75 80

Leu Pro Trp Thr Gln His Ser Pro His Thr Arg Leu Arg Arg Ser Gly
85 90 95

Arg Cys Asp Leu Phe Gln Lys Lys Asp Tyr Val Arg Thr Cys Ile Met
100 105 110

Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala Thr Thr Val Gly Gly
115 120 125

Leu Pro Cys Gln Ala Trp Ser His Lys Phe Pro Asn Asp His Lys Tyr
130 135 140

Thr Pro Thr Leu Arg Asn Gly Leu Glu Glu Asn Phe Cys Arg Asn Pro
145 150 155 160

Asp Gly Asp Pro Gly Gly Pro Trp Cys Tyr Thr Thr Asp Pro Ala Val
165 170 175

Arg Phe Gln Ser Cys Gly Ile Lys Ser Cys Arg Glu Ala Ala Cys Val
180 185 190

Trp Cys Asn Gly Glu Glu Tyr Arg Gly Ala Val Asp Arg Thr Glu Ser
195 200 205

Gly Arg Glu Cys Gln Arg Trp Asp Leu Gln His Pro His Gln His Pro

210	215	220													
Phe	Glu	Pro	Gly	Lys	Phe	Leu	Asp	Gln	Gly	Leu	Asp	Asp	Asn	Tyr	Cys
225					230					235					240
Arg	Asn	Pro	Asp	Gly	Ser	Glu	Arg	Pro	Trp	Cys	Tyr	Thr	Thr	Asp	Pro
					245				250						255
Gln	Ile	Glu	Arg	Glu	Phe	Cys	Asp	Leu	Pro	Arg	Cys	Gly	Ser	Glu	Ala
					260			265							270
Gln	Pro	Arg	Gln	Glu	Ala	Thr	Thr	Val	Ser	Cys	Phe	Arg	Gly	Lys	Gly
					275			280							285
Glu	Gly	Tyr	Arg	Gly	Thr	Ala	Asn	Thr	Thr	Ala	Gly	Val	Pro	Cys	
					290		295			300					
Gln	Arg	Trp	Asp	Ala	Gln	Ile	Pro	His	Gln	His	Arg	Phe	Thr	Pro	Glu
					305		310			315					320
Lys	Tyr	Ala	Cys	Lys	Asp	Leu	Arg	Glu	Asn	Phe	Cys	Arg	Asn	Pro	Asp
					325			330							335
Gly	Ser	Glu	Ala	Pro	Trp	Cys	Phe	Thr	Leu	Arg	Pro	Gly	Met	Arg	Ala
					340			345							350
Ala	Phe	Cys	Tyr	Gln	Ile	Arg	Arg	Cys	Thr	Asp	Asp	Val	Arg	Pro	Gln
					355			360							365
Asp	Cys	Tyr	His	Gly	Ala	Gly	Glu	Gln	Tyr	Arg	Gly	Thr	Val	Ser	Lys
					370		375			380					
Thr	Arg	Lys	Gly	Val	Gln	Cys	Gln	Arg	Trp	Ser	Ala	Glu	Thr	Pro	His
					385		390			395					400
Lys	Pro	Gln	Phe	Thr	Phe	Thr	Ser	Glu	Pro	His	Ala	Gln	Leu	Glu	Glu
					405			410							415
Asn	Phe	Cys	Arg	Asn	Pro	Asp	Gly	Asp	Ser	His	Gly	Pro	Trp	Cys	Tyr
					420			425							430
Thr	Met	Asp	Pro	Arg	Thr	Pro	Phe	Asp	Tyr	Cys	Ala	Leu	Arg	Arg	Cys
					435			440							445
Ala	Asp	Asp	Gln	Pro	Pro	Ser	Ile	Leu	Asp	Pro	Pro	Asp	Gln	Val	Gln
					450			455							460
Phe	Glu	Lys	Cys	Gly	Lys	Arg	Val	Asp	Arg	Leu	Asp	Gln	Arg	Arg	Ser
					465		470			475					480
Lys	Leu	Arg	Val	Val	Gly	Gly	His	Pro	Gly	Asn	Ser	Pro	Trp	Thr	Val
					485			490							495
Ser	Leu	Arg	Asn	Arg	Gln	Gly	Gln	His	Phe	Cys	Gly	Ser	Leu	Val	
					500			505							510
Lys	Glu	Gln	Trp	Ile	Leu	Thr	Ala	Arg	Gln	Cys	Phe	Ser	Ser	Cys	His

515	520	525
Met Pro Leu Thr Gly Tyr Glu Val Trp Leu Gly Thr Leu Phe Gln Asn 530	535	540
Pro Gln His Gly Glu Pro Ser Leu Gln Arg Val Pro Val Ala Lys Met 545	550	555
Val Cys Gly Pro Ser Gly Ser Gln Leu Val Leu Leu Lys Leu Glu Arg 565	570	575
Ser Val Thr Leu Asn Gln Arg Val Ala Leu Ile Cys Leu Pro Pro Glu 580	585	590
Trp Tyr Val Val Pro Pro Gly Thr Lys Cys Glu Ile Ala Gly Trp Gly 595	600	605
Glu Thr Lys Gly Thr Gly Asn Asp Thr Val Leu Asn Val Ala Leu Leu 610	615	620
Asn Val Ile Ser Asn Gln Glu Cys Asn Ile Lys His Arg Gly Arg Val 625	630	635
Arg Glu Ser Glu Met Cys Thr Glu Gly Leu Leu Ala Pro Val Gly Ala 645	650	655
Cys Glu Gly Asp Tyr Gly Gly Pro Leu Ala Cys Phe Thr His Asn Cys 660	665	670
Trp Val Leu Glu Gly Ile Ile Pro Asn Arg Val Cys Ala Arg Ser 675	680	685
Arg Trp Pro Ala Val Phe Thr Arg Val Ser Val Phe Val Asp Trp Ile 690	695	700
His Lys Val Met Arg Leu Gly 705	710	
<210> 54		
<211> 529		
<212> PRT		
<213> Homo sapiens		
<400> 54		
Met Asp Cys Arg Ala Phe His Tyr Asn Val Ser Ser His Gly Cys Gln 1	5	10
		15
Leu Leu Pro Trp Thr Gln His Ser Pro His Thr Arg Leu Arg His Ser 20	25	30
Gly Arg Cys Asp Leu Phe Gln Glu Lys Asp Tyr Ile Arg Thr Cys Ile 35	40	45
Met Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala Thr Thr Val Gly 50	55	60

Gly Leu Ser Cys Gln Ala Trp Ser His Lys Phe Pro Asn Asp His Gln
65 70 75 80

Tyr Met Pro Thr Leu Arg Asn Gly Leu Glu Glu Asn Phe Cys Arg Asn
85 90 95

Pro Asp Gly Asp Pro Gly Gly Pro Trp Cys His Thr Thr Asp Pro Ala
100 105 110

Val Arg Phe Gln Ser Cys Gly Ile Lys Ser Cys Arg Val Ala Ala Cys
115 120 125

Val Trp Cys Asn Gly Glu Glu Tyr Arg Gly Ala Val Asp Arg Thr Glu
130 135 140

Ser Gly Arg Glu Cys Gln Arg Trp Asp Leu Gln His Pro His Gln His
145 150 155 160

Pro Phe Glu Pro Gly Lys Phe Leu Asp Gln Gly Leu Asp Asp Asn Tyr
165 170 175

Cys Arg Asn Pro Asp Gly Ser Glu Arg Pro Trp Cys Tyr Thr Thr Asp
180 185 190

Pro Gln Ile Glu Arg Glu Phe Cys Asp Leu Pro Arg Cys Gly Ser Glu
195 200 205

Ala Gln Pro Arg Gln Glu Ala Thr Ser Val Ser Cys Phe Arg Gly Lys
210 215 220

Gly Glu Gly Tyr Arg Gly Thr Ala Asn Thr Thr Thr Ala Gly Val Pro
225 230 235 240

Cys Gln Arg Trp Asp Ala Gln Ile Pro His Gln His Arg Phe Thr Pro
245 250 255

Glu Lys Tyr Ala Cys Lys Asp Leu Arg Glu Asn Phe Cys Arg Asn Pro
260 265 270

Asp Gly Ser Glu Ala Pro Trp Cys Phe Thr Leu Arg Pro Gly Met Arg
275 280 285

Val Gly Phe Cys Tyr Gln Ile Arg Arg Cys Thr Asp Asp Val Arg Pro
290 295 300

Gln Asp Cys Tyr His Gly Ala Gly Glu Gln Tyr Arg Gly Thr Val Ser
305 310 315 320

Lys Thr Arg Lys Gly Val Gln Cys Gln Arg Gly Ser Ala Glu Thr Pro
325 330 335

His Lys Pro Gln Phe Thr Phe Thr Ser Glu Pro His Ala Gln Leu Glu
340 345 350

Glu Asn Phe Cys Gln Thr Gln Met Gly Ile Ala Met Gly Pro Gly Ala
355 360 365

Thr Arg Trp Thr Gln Gly Pro His Ser Thr Thr Val Pro Cys Asp Ala
370 375 380

Ala Leu Met Thr Ser Arg His Gln Ser Trp Thr Pro Gln Thr Arg Cys
385 390 395 400

Ser Leu Arg Ser Val Ala Arg Gly Trp Ile Gly Trp Ile Ser Val Val
405 410 415

Pro Ser Cys Ala Trp Leu Gly Ala Ile Arg Ala Thr His Pro Gly Gln
420 425 430

Ser Ala Cys Gly Ile Gly Gln Gly Gln His Phe Cys Gly Gly Ser Leu
435 440 445

Val Lys Glu Gln Trp Ile Leu Thr Ala Arg Gln Cys Phe Ser Ser Cys
450 455 460

His Met Pro Leu Thr Gly Tyr Glu Val Trp Leu Gly Thr Leu Phe Gln
465 470 475 480

Asn Pro Gln His Gly Glu Pro Gly Leu Gln Arg Val Pro Val Ala Lys
485 490 495

Met Leu Cys Gly Pro Ser Gly Ser Gln Leu Val Leu Leu Lys Leu Glu
500 505 510

Arg Ser Val Thr Leu Asn Gln Arg Val Ala Leu Ile Cys Leu Pro Pro
515 520 525

Glu

<210> 55
<211> 716
<212> PRT
<213> Mus musculus

<400> 55
Met Gly Trp Leu Pro Leu Leu Leu Leu Val Gln Cys Ser Arg Ala
1 5 10 15

Leu Gly Gln Arg Ser Pro Leu Asn Asp Phe Gln Leu Phe Arg Gly Thr
20 25 30

Glu Leu Arg Asn Leu Leu His Thr Ala Val Pro Gly Pro Trp Gln Glu
35 40 45

Asp Val Ala Asp Ala Glu Glu Cys Ala Arg Arg Cys Gly Pro Leu Leu
50 55 60

Asp Cys Arg Ala Phe His Tyr Asn Met Ser Ser His Gly Cys Gln Leu
65 70 75 80

Leu Pro Trp Thr Gln His Ser Leu His Thr Gln Leu Tyr His Ser Ser
85 90 95

Leu Cys His Leu Phe Gln Lys Lys Asp Tyr Val Arg Thr Cys Ile Met
 100 105 110
 Asp Asn Gly Val Ser Tyr Arg Gly Thr Val Ala Arg Thr Ala Gly Gly
 115 120 125
 Leu Pro Cys Gln Ala Trp Ser Arg Arg Phe Pro Asn Asp His Lys Tyr
 130 135 140
 Thr Pro Thr Pro Lys Asn Gly Leu Glu Glu Asn Phe Cys Arg Asn Pro
 145 150 155 160
 Asp Gly Asp Pro Arg Gly Pro Trp Cys Tyr Thr Thr Asn Arg Ser Val
 165 170 175
 Arg Phe Gln Ser Cys Gly Ile Lys Thr Cys Arg Glu Ala Val Cys Val
 180 185 190
 Leu Cys Asn Gly Glu Asp Tyr Arg Gly Glu Val Asp Val Thr Glu Ser
 195 200 205
 Gly Arg Glu Cys Gln Arg Trp Asp Leu Gln His Pro His Ser His Pro
 210 215 220
 Phe Gln Pro Glu Lys Phe Leu Asp Lys Asp Leu Lys Asp Asn Tyr Cys
 225 230 235 240
 Arg Asn Pro Asp Gly Ser Glu Arg Pro Trp Cys Tyr Thr Thr Asp Pro
 245 250 255
 Asn Val Glu Arg Glu Phe Cys Asp Leu Pro Ser Cys Gly Pro Asn Leu
 260 265 270
 Pro Pro Thr Val Lys Gly Ser Lys Ser Gln Arg Arg Asn Lys Gly Lys
 275 280 285
 Ala Leu Asn Cys Phe Arg Gly Lys Gly Glu Asp Tyr Arg Gly Thr Thr
 290 295 300
 Asn Thr Thr Ser Ala Gly Val Pro Cys Gln Arg Trp Asp Ala Gln Ser
 305 310 315 320
 Pro His Gln His Arg Phe Val Pro Glu Lys Tyr Ala Cys Lys Asp Leu
 325 330 335
 Arg Glu Asn Phe Cys Arg Asn Pro Asp Gly Ser Glu Ala Pro Trp Cys
 340 345 350
 Phe Thr Ser Arg Pro Gly Leu Arg Met Ala Phe Cys His Gln Ile Pro
 355 360 365
 Arg Cys Thr Glu Glu Leu Val Pro Glu Gly Cys Tyr His Gly Ser Gly
 370 375 380
 Glu Gln Tyr Arg Gly Ser Val Ser Lys Thr Arg Lys Gly Val Gln Cys
 385 390 395 400

Gln His Trp Ser Ser Glu Thr Pro His Lys Pro Gln Phe Thr Pro Thr
405 410 415

Ser Ala Pro Gln Ala Gly Leu Glu Ala Asn Phe Cys Arg Asn Pro Asp
420 425 430

Gly Asp Ser His Gly Pro Trp Cys Tyr Thr Leu Asp Pro Asp Ile Leu
435 440 445

Phe Asp Tyr Cys Ala Leu Gln Arg Cys Asp Asp Asp Gln Pro Pro Ser
450 455 460

Ile Leu Asp Pro Pro Asp Gln Val Val Phe Glu Lys Cys Gly Lys Arg
465 470 475 480

Val Asp Lys Ser Asn Lys Leu Arg Val Val Gly Gly His Pro Gly Asn
485 490 495

Ser Pro Trp Thr Val Ser Leu Arg Asn Arg Gln Gly Gln His Phe Cys
500 505 510

Gly Gly Ser Leu Val Lys Glu Gln Trp Val Leu Thr Ala Arg Gln Cys
515 520 525

Ile Trp Ser Cys His Glu Pro Leu Thr Gly Tyr Glu Val Trp Leu Gly
530 535 540

Thr Ile Asn Gln Asn Pro Gln Pro Gly Glu Ala Asn Leu Gln Arg Val
545 550 555 560

Pro Val Ala Lys Ala Val Cys Gly Pro Ala Gly Ser Gln Leu Val Leu
565 570 575

Leu Lys Leu Glu Arg Pro Val Ile Leu Asn His His Val Ala Leu Ile
580 585 590

Cys Leu Pro Pro Glu Gln Tyr Val Val Pro Pro Gly Thr Lys Cys Glu
595 600 605

Ile Ala Gly Trp Gly Glu Ser Ile Gly Thr Ser Asn Asn Thr Val Leu
610 615 620

His Val Ala Ser Met Asn Val Ile Ser Asn Gln Glu Cys Asn Thr Lys
625 630 635 640

Tyr Arg Gly His Ile Gln Glu Ser Glu Ile Cys Thr Gln Gly Leu Val
645 650 655

Val Pro Val Gly Ala Cys Glu Gly Asp Tyr Gly Gly Pro Leu Ala Cys
660 665 670

Tyr Thr His Asp Cys Trp Val Leu Gln Gly Leu Ile Ile Pro Asn Arg
675 680 685

Val Cys Ala Arg Pro Arg Trp Pro Ala Ile Phe Thr Arg Val Ser Val
690 695 700

Phe Val Asp Trp Ile Asn Lys Val Met Gln Leu Glu
705 710 715

<210> 56
<211> 135
<212> PRT
<213> Homo sapiens

<400> 56
Met Ala Thr Val Gln Gln Leu Glu Gly Arg Trp Arg Leu Val Asp Ser
1 5 10 15

Lys Gly Phe Asp Glu Tyr Met Lys Glu Leu Gly Val Gly Ile Ala Leu
20 25 30

Arg Lys Met Gly Ala Met Ala Lys Pro Asp Cys Ile Val Thr Cys Asp
35 40 45

Gly Lys Asn Leu Thr Ile Lys Thr Glu Ser Thr Leu Lys Thr Thr Gln
50 55 60

Phe Ser Cys Pro Leu Gly Glu Lys Phe Glu Glu Thr Thr Ala Asp Gly
65 70 75 80

Arg Lys Thr Gln Thr Val Cys Asn Phe Thr Asp Gly Ala Leu Val Gln
85 90 95

His Gln Glu Trp Asp Gly Lys Glu Ser Thr Ile Thr Arg Lys Leu Lys
100 105 110

Asp Gly Lys Leu Val Val Glu Cys Val Met Asn His Val Ala Cys Thr
115 120 125

Arg Ile Tyr Glu Lys Val Glu
130 135

<210> 57
<211> 135
<212> PRT
<213> Homo sapiens

<400> 57
Met Ala Thr Val Gln Gln Leu Glu Gly Arg Trp Arg Leu Val Asp Ser
1 5 10 15

Lys Gly Phe Asp Glu Tyr Met Lys Glu Leu Gly Val Gly Ile Ala Leu
20 25 30

Arg Lys Met Gly Ala Met Ala Lys Pro Asp Cys Ile Ile Thr Cys Asp
35 40 45

Gly Lys Asn Leu Thr Ile Lys Thr Glu Ser Thr Leu Lys Thr Thr Gln
50 55 60

Phe Ser Cys Thr Leu Gly Glu Lys Phe Glu Glu Thr Thr Ala Asp Gly
65 70 75 80

Arg Lys Thr Gln Thr Val Cys Asn Phe Thr Asp Gly Ala Leu Val Gln
85 90 95

His Gln Glu Trp Asp Gly Lys Glu Ser Thr Ile Thr Arg Lys Leu Lys
100 105 110

Asp Gly Lys Leu Val Val Glu Cys Val Met Asn Asn Val Thr Cys Thr
115 120 125

Arg Ile Tyr Glu Lys Val Glu
130 135

<210> 58

<211> 135

<212> PRT

<213> Homo sapiens

<400> 58

Met Ala Thr Val Gln Gln Leu Glu Gly Arg Trp Arg Leu Val Asp Ser
1 5 10 15

Arg Gly Phe Asp Glu Tyr Val Lys Glu Leu Gly Val Gly Ile Ala Leu
20 25 30

Arg Lys Met Asp Thr Ile Ala Lys Pro Asp Cys Ile Ile Thr Cys Asp
35 40 45

Gly Lys Asn Leu Thr Ile Lys Thr Glu Ser Thr Leu Lys Thr Thr Gln
50 55 60

Phe Ser Cys Thr Leu Gly Glu Asn Phe Glu Glu Thr Thr Ala Asp Gly
65 70 75 80

Arg Lys Thr Gln Thr Val Cys Asn Phe Thr Asp Gly Ala Leu Val Gln
85 90 95

His Gln Glu Trp Asp Gly Lys Glu Asn Thr Ile Arg Arg Lys Leu Lys
100 105 110

Asp Gly Lys Leu Val Val Asp Cys Val Met Asn Ser Val Thr Cys Thr
115 120 125

Arg Ile Tyr Glu Lys Val Glu
130 135

<210> 59

<211> 135

<212> PRT

<213> Homo sapiens

<400> 59

Met Ala Thr Val Gln Gln Leu Glu Gly Arg Trp Arg Leu Leu Asp Ser

1

5

10

15

Lys Gly Phe Asp Glu Tyr Met Lys Glu Leu Gly Val Gly Ile Ala Leu
20 25 30

Gln Lys Met Gly Ala Met Ala Lys Pro Asp Cys Ile Ile Thr Cys Asp
35 40 45

Gly Arg Asn Leu Thr Thr Lys Thr Glu Ser Thr Leu Lys Thr Thr Gln
50 55 60

Phe Ser Cys Thr Leu Gly Asp Glu Phe Glu Glu Thr Thr Ala Asp Gly
65 70 75 80

Arg Lys Thr Gln Thr Val Cys Asn Phe Thr Asp Gly Ala Leu Val Gln
85 90 95

His Gln Glu Trp Asp Gly Lys Glu Ser Thr Ile Thr Arg Lys Leu Lys
100 105 110

Asp Gly Lys Leu Val Val Glu Cys Val Met Asn Asn Val Thr Cys Thr
115 120 125

Arg Ile Tyr Glu Lys Val Glu
130 135

<210> 60
<211> 135
<212> PRT
<213> Bos taurus

<400> 60
Met Ala Thr Val Gln Gln Leu Val Gly Arg Trp Arg Leu Val Glu Ser
1 5 10 15

Lys Gly Phe Asp Glu Tyr Met Lys Glu Val Gly Val Gly Met Ala Leu
20 25 30

Arg Lys Val Gly Ala Met Ala Lys Pro Asp Cys Ile Ile Thr Ser Asp
35 40 45

Gly Lys Asn Leu Ser Ile Lys Thr Glu Ser Thr Leu Lys Thr Thr Gln
50 55 60

Phe Ser Cys Lys Leu Gly Glu Lys Phe Glu Glu Thr Thr Ala Asp Gly
65 70 75 80

Arg Lys Thr Gln Thr Val Cys Asn Phe Thr Asp Gly Ala Leu Val Gln
85 90 95

His Gln Glu Trp Asp Gly Lys Glu Ser Thr Ile Thr Arg Lys Leu Glu
100 105 110

Asp Gly Lys Leu Val Val Val Cys Val Met Asn Asn Val Thr Cys Thr
115 120 125

Arg Val Tyr Glu Lys Val Glu
130 135

<210> 61
<211> 266
<212> PRT
<213> Homo sapiens

<400> 61
Met Asn Trp Ala Phe Leu Gln Gly Leu Leu Ser Gly Val Asn Lys Tyr
1 5 10 15

Ser Thr Val Leu Ser Arg Ile Trp Leu Ser Val Val Phe Ile Phe Arg
20 25 30

Val Leu Val Tyr Val Val Ala Ala Glu Glu Val Trp Asp Asp Glu Gln
35 40 45

Lys Asp Phe Val Cys Asn Thr Lys Gln Pro Gly Cys Pro Asn Val Cys
50 55 60

Tyr Asp Glu Phe Phe Pro Val Ser His Val Arg Leu Trp Ala Leu Gln
65 70 75 80

Leu Ile Leu Val Thr Cys Pro Ser Leu Leu Val Val Met His Val Ala
85 90 95

Tyr Arg Glu Glu Arg Glu Arg Lys His His Leu Lys His Gly Pro Asn
100 105 110

Ala Pro Ser Leu Tyr Asp Asn Leu Ser Lys Lys Arg Gly Gly Leu Trp
115 120 125

Trp Thr Tyr Leu Leu Ser Leu Ile Phe Lys Ala Ala Val Asp Ala Gly
130 135 140

Phe Leu Tyr Ile Phe His Arg Leu Tyr Lys Asp Tyr Asp Met Pro Arg
145 150 155 160

Val Val Ala Cys Ser Val Glu Pro Cys Pro His Thr Val Asp Cys Tyr
165 170 175

Ile Ser Arg Pro Thr Glu Lys Lys Val Phe Thr Tyr Phe Met Val Thr
180 185 190

Thr Ala Ala Ile Cys Ile Leu Leu Asn Leu Ser Glu Val Phe Tyr Leu
195 200 205

Val Gly Lys Arg Cys Met Glu Ile Phe Gly Pro Arg His Arg Arg Pro
210 215 220

Arg Cys Arg Glu Cys Leu Pro Asp Thr Cys Pro Pro Tyr Val Leu Ser
225 230 235 240

Gln Gly Gly His Pro Glu Asp Gly Asn Ser Val Leu Met Lys Ala Gly
245 250 255

Ser Ala Pro Val Asp Ala Gly Gly Tyr Pro
260 265

<210> 62
<211> 265
<212> PRT
<213> Rattus norvegicus

<400> 62
Met Asn Trp Gly Phe Leu Gln Gly Ile Leu Ser Gly Val Asn Lys Tyr
1 5 10 15

Ser Thr Ala Leu Gly Arg Ile Trp Leu Ser Val Val Phe Ile Phe Arg
20 25 30

Val Leu Val Tyr Val Val Ala Ala Glu Glu Val Trp Asp Asp Glu Gln
35 40 45

Lys Asp Phe Ile Cys Asn Thr Lys Gln Pro Gly Cys Pro Asn Val Cys
50 55 60

Tyr Asp Glu Phe Phe Pro Val Ser His Val Arg Leu Trp Ala Leu Gln
65 70 75 80

Leu Ile Leu Val Thr Cys Pro Ser Leu Leu Val Val Met His Val Ala
85 90 95

Tyr Arg Glu Glu Arg Glu Arg Lys His Arg Leu Lys His Gly Pro Asp
100 105 110

Ala Pro Ala Leu Tyr Ser Asn Leu Ser Lys Lys Arg Gly Gly Leu Trp
115 120 125

Trp Thr Tyr Leu Leu Ser Leu Ile Phe Lys Ala Ala Val Asp Ser Gly
130 135 140

Phe Leu Tyr Ile Phe His Cys Ile Tyr Lys Asp Tyr Asp Met Pro Arg
145 150 155 160

Val Val Ala Cys Ser Val Gln Pro Cys Pro His Thr Val Asp Cys Tyr
165 170 175

Ile Ser Arg Pro Thr Glu Lys Lys Val Phe Thr Tyr Phe Met Val Val
180 185 190

Thr Ala Ala Ile Cys Ile Leu Leu Asn Leu Ser Glu Val Ala Tyr Leu
195 200 205

Val Gly Lys Arg Cys Met Glu Val Phe Arg Pro Arg Arg Gln Lys Thr
210 215 220

Ser Arg Arg His Gln Leu Pro Asp Thr Cys Pro Pro Tyr Val Ile Ser
225 230 235 240

Lys Gly His Pro Gln Asp Glu Ser Thr Val Leu Thr Lys Ala Gly Met

245

250

255

Ala Thr Val Asp Ala Gly Val Tyr Pro
 260 265

<210> 63
 <211> 266
 <212> PRT
 <213> Mus musculus

<400> 63
 Met Asn Trp Gly Phe Leu Gln Gly Ile Leu Ser Gly Val Asn Lys Tyr
 1 5 10 15

Ser Thr Ala Leu Gly Arg Ile Trp Leu Ser Val Val Phe Ile Phe Arg
 20 25 30

Val Leu Val Tyr Val Val Ala Ala Glu Glu Val Trp Asp Asp Asp Gln
 35 40 45

Lys Asp Phe Ile Cys Asn Thr Lys Gln Pro Gly Cys Pro Asn Val Cys
 50 55 60

Tyr Asp Glu Phe Phe Pro Val Ser His Val Arg Leu Trp Ala Leu Gln
 65 70 75 80

Leu Ile Leu Val Thr Cys Pro Ser Leu Leu Val Val Met His Val Ala
 85 90 95

Tyr Arg Glu Glu Arg Glu Arg Lys His Arg Leu Lys His Gly Pro Asn
 100 105 110

Ala Pro Ala Leu Tyr Ser Asn Leu Ser Lys Lys Arg Gly Gly Leu Trp
 115 120 125

Trp Thr Tyr Leu Leu Ser Leu Ile Phe Lys Ala Ala Val Asp Ser Gly
 130 135 140

Phe Leu Tyr Ile Phe His Cys Ile Tyr Lys Asp Tyr Asp Met Pro Arg
 145 150 155 160

Val Val Ala Cys Ser Val Thr Pro Cys Pro His Thr Val Asp Cys Tyr
 165 170 175

Ile Ala Arg Pro Thr Glu Lys Lys Val Phe Thr Tyr Phe Met Val Val
 180 185 190

Thr Ala Ala Ile Cys Ile Leu Leu Asn Leu Ser Glu Val Val Tyr Leu
 195 200 205

Val Gly Lys Arg Cys Met Glu Val Phe Arg Pro Arg Arg Arg Lys Ala
 210 215 220

Ser Arg Arg His Gln Leu Pro Asp Thr Cys Pro Pro Tyr Val Ile Ser
 225 230 235 240

Lys Gly Gly His Pro Gln Asp Glu Ser Val Ile Leu Thr Lys Ala Gly
 245 250 255

Met Ala Thr Val Asp Ala Gly Val Tyr Pro
 260 265

<210> 64
 <211> 273
 <212> PRT
 <213> Homo sapiens

<400> 64
 Met Asn Trp Ser Ile Phe Glu Gly Leu Leu Ser Gly Val Asn Lys Tyr
 1 5 10 15

Ser Thr Ala Phe Gly Arg Ile Trp Leu Ser Leu Val Phe Ile Phe Arg
 20 25 30

Val Leu Val Tyr Leu Val Thr Ala Glu Arg Val Trp Ser Asp Asp His
 35 40 45

Lys Asp Phe Asp Cys Asn Thr Arg Gln Pro Gly Cys Ser Asn Val Cys
 50 55 60

Phe Asp Glu Phe Phe Pro Val Ser His Val Arg Leu Trp Ala Leu Gln
 65 70 75 80

Leu Ile Leu Val Thr Cys Pro Ser Leu Leu Val Val Met His Val Ala
 85 90 95

Tyr Arg Glu Val Gln Glu Lys Arg His Arg Glu Ala His Gly Glu Asn
 100 105 110

Ser Gly Arg Leu Tyr Leu Asn Pro Gly Lys Lys Arg Gly Gly Leu Trp
 115 120 125

Trp Thr Tyr Val Cys Ser Leu Val Phe Lys Ala Ser Val Asp Ile Ala
 130 135 140

Phe Leu Tyr Val Phe His Ser Phe Tyr Pro Lys Tyr Ile Leu Pro Pro
 145 150 155 160

Val Val Lys Cys His Ala Asp Pro Cys Pro Asn Ile Val Asp Cys Phe
 165 170 175

Ile Ser Lys Pro Ser Glu Lys Asn Ile Phe Thr Leu Phe Met Val Ala
 180 185 190

Thr Ala Ala Ile Cys Ile Leu Leu Asn Leu Val Glu Leu Ile Tyr Leu
 195 200 205

Val Ser Lys Arg Cys His Glu Cys Leu Ala Ala Arg Lys Ala Gln Ala
 210 215 220

Met Cys Thr Gly His His Pro His Gly Thr Thr Ser Ser Cys Lys Gln
 225 230 235 240

Asp Asp Leu Leu Ser Gly Asp Leu Ile Phe Leu Gly Ser Asp Ser His
245 250 255

Pro Pro Leu Leu Pro Asp Arg Pro Arg Asp His Val Lys Lys Thr Ile
260 265 270

Leu

<210> 65
<211> 273
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (41)
<223> Wherein Xaa is any amino acid.

<400> 65
Met Asn Trp Ser Ile Phe Glu Gly Leu Leu Ser Gly Val Asn Lys Tyr
1 5 10 15

Ser Thr Ala Phe Gly Arg Ile Trp Leu Ser Leu Val Phe Ile Phe Arg
20 25 30

Val Leu Val Tyr Leu Val Thr Ala Xaa Arg Val Trp Ser Asp Asp His
35 40 45

Lys Asp Phe Asp Cys Asn Thr Arg Gln Pro Gly Cys Ser Asn Val Cys
50 55 60

Phe Asp Glu Phe Phe Pro Val Ser His Val Arg Leu Trp Ala Leu Gln
65 70 75 80

Leu Ile Leu Val Thr Cys Pro Ser Leu Leu Val Val Met His Val Ala
85 90 95

Tyr Arg Glu Val Gln Glu Lys Arg His Arg Glu Ala His Gly Glu Asn
100 105 110

Ser Gly Arg Leu Tyr Leu Asn Pro Gly Lys Lys Arg Gly Gly Leu Trp
115 120 125

Trp Thr Tyr Val Cys Ser Leu Val Phe Lys Ala Ser Val Asp Ile Ala
130 135 140

Phe Leu Tyr Val Phe His Ser Phe Tyr Pro Lys Tyr Ile Leu Pro Pro
145 150 155 160

Val Val Lys Cys His Ala Asp Pro Cys Pro Asn Ile Val Asp Cys Phe
165 170 175

Ile Ser Lys Pro Ser Glu Lys Asn Ile Phe Thr Leu Phe Met Val Ala
180 185 190

Thr Ala Ala Ile Cys Ile Leu Leu Asn Leu Val Glu Leu Ile Tyr Leu
195 200 205

Val Ser Lys Arg Cys His Glu Cys Leu Ala Ala Arg Lys Ala Gln Ala
210 215 220

Met Cys Thr Gly His His Pro His Gly Thr Thr Ser Ser Cys Lys Gln
225 230 235 240

Asp Asp Leu Leu Ser Gly Asp Leu Ile Phe Leu Gly Ser Asp Ser His
245 250 255

Pro Pro Leu Leu Pro Asp Arg Pro Arg Asp His Val Lys Lys Thr Ile
260 265 270

Leu

<210> 66
<211> 434
<212> PRT
<213> Homo sapiens

<400> 66
Ala Lys Gln Gln Leu Asn Leu Arg Thr His Met Ala Asp Glu Asn Lys
1 5 10 15

Asn Glu Tyr Ala Ala Gln Leu Gln Asn Phe Asn Gly Glu Gln His Lys
20 25 30

His Phe Tyr Val Val Ile Pro Gln Ile Tyr Lys Gln Leu Gln Glu Met
35 40 45

Asp Glu Arg Arg Thr Ile Lys Leu Ser Glu Cys Tyr Arg Gly Phe Ala
50 55 60

Asp Ser Glu Arg Lys Val Ile Pro Ile Ile Ser Lys Cys Leu Glu Gly
65 70 75 80

Met Ile Leu Ala Ala Lys Ser Val Asp Glu Arg Arg Asp Ser Gln Met
85 90 95

Val Val Asp Ser Phe Lys Ser Gly Phe Glu Pro Pro Gly Asp Phe Pro
100 105 110

Phe Glu Asp Tyr Ser Gln His Ile Tyr Arg Thr Ile Ser Asp Gly Thr
115 120 125

Ile Ser Ala Ser Lys Gln Glu Ser Gly Lys Met Asp Ala Lys Thr Thr
130 135 140

Val Gly Lys Ala Lys Gly Lys Leu Trp Leu Phe Gly Lys Lys Pro Lys
145 150 155 160

Pro Gln Ser Pro Pro Leu Thr Pro Thr Ser Leu Phe Thr Ser Ser Thr

165	170	175	
Pro Asn Gly Ser Gln Phe Leu Thr Phe Ser Ile Glu Pro Val His Tyr 180	185	190	
Cys Met Asn Glu Ile Lys Thr Gly Lys Pro Arg Ile Pro Ser Phe Arg 195	200	205	
Ser Leu Lys Arg Gly Gly Pro Ala Leu Glu Asp Phe Ser His Leu Pro 210	215	220	
Pro Glu Gln Arg Arg Lys Lys Leu Gln Gln Arg Ile Asp Glu Leu Asn 225	230	235	240
Arg Glu Leu Gln Lys Glu Ser Asp Gln Lys Asp Ala Leu Asn Lys Met 245	250	255	
Lys Asp Val Tyr Glu Lys Asn Pro Gln Met Gly Asp Pro Gly Ser Leu 260	265	270	
Gln Pro Lys Leu Ala Glu Thr Met Asn Asn Ile Asp Arg Leu Arg Met 275	280	285	
Glu Ile His Lys Asn Glu Ala Trp Leu Ser Glu Val Glu Gly Lys Thr 290	295	300	
Gly Gly Arg Gly Asp Arg Arg His Ser Ser Asp Ile Asn His Leu Val 305	310	315	320
Thr Gln Gly Arg Glu Ser Pro Glu Gly Ser Tyr Thr Asp Asp Ala Asn 325	330	335	
Gln Glu Val Arg Gly Pro Pro Gln Gln His Gly His His Asn Glu Phe 340	345	350	
Asp Asp Glu Phe Glu Asp Asp Asp Pro Leu Pro Ala Ile Gly His Cys 355	360	365	
Lys Ala Ile Tyr Pro Phe Asp Gly His Asn Glu Gly Thr Leu Ala Met 370	375	380	
Lys Glu Gly Glu Val Leu Tyr Ile Ile Glu Glu Asp Lys Gly Asp Gly 385	390	395	400
Trp Thr Arg Ala Arg Arg Gln Asn Gly Glu Glu Gly Tyr Val Pro Thr 405	410	415	
Ser Tyr Ile Asp Val Thr Leu Glu Lys Asn Ser Lys Gly Ala Val Thr 420	425	430	
Tyr Ile			

<210> 67
<211> 330
<212> PRT

<213> Homo sapiens

<400> 67

Met	Asp	Glu	Arg	Arg	Thr	Ile	Lys	Leu	Ser	Glu	Cys	Tyr	Arg	Gly	Phe
1						5			10						15
Ala	Asp	Ser	Glu	Arg	Lys	Val	Ile	Pro	Ile	Ile	Ser	Lys	Cys	Leu	Glu
						20			25						30
Gly	Met	Ile	Leu	Ala	Ala	Lys	Ser	Val	Asp	Glu	Arg	Arg	Asp	Ser	Gln
						35			40						45
Met	Val	Val	Asp	Ser	Phe	Lys	Ser	Gly	Phe	Glu	Pro	Pro	Gly	Asp	Phe
						50			55						60
Pro	Phe	Glu	Asp	Tyr	Ser	Gln	His	Ile	Tyr	Arg	Thr	Ile	Ser	Asp	Gly
						65			70			75			80
Thr	Ile	Ser	Ala	Ser	Lys	Gln	Glu	Ser	Gly	Lys	Met	Asp	Ala	Lys	Thr
						85			90						95
Thr	Val	Gly	Lys	Ala	Lys	Gly	Lys	Leu	Trp	Leu	Phe	Gly	Lys	Lys	Pro
						100			105						110
Lys	Gly	Pro	Ala	Leu	Glu	Asp	Phe	Ser	His	Leu	Pro	Pro	Glu	Gln	Arg
						115			120						125
Arg	Lys	Lys	Leu	Gln	Gln	Arg	Ile	Asp	Glu	Leu	Asn	Arg	Glu	Leu	Gln
						130			135			140			
Lys	Glu	Ser	Asp	Gln	Lys	Asp	Ala	Leu	Asn	Lys	Met	Lys	Asp	Val	Tyr
						145			150			155			160
Glu	Lys	Asn	Pro	Gln	Met	Gly	Asp	Pro	Gly	Ser	Leu	Gln	Pro	Lys	Leu
						165			170			175			
Ala	Glu	Thr	Met	Asn	Asn	Ile	Asp	Arg	Leu	Arg	Met	Glu	Ile	His	Lys
						180			185			190			
Asn	Glu	Ala	Trp	Leu	Ser	Glu	Val	Glu	Gly	Lys	Thr	Gly	Gly	Arg	Gly
						195			200			205			
Asp	Arg	Arg	His	Ser	Ser	Asp	Ile	Asn	His	Leu	Val	Thr	Gln	Gly	Arg
						210			215			220			
Glu	Ser	Pro	Glu	Gly	Ser	Tyr	Thr	Asp	Asp	Ala	Asn	Gln	Glu	Val	Arg
						225			230			235			240
Gly	Pro	Pro	Gln	Gln	His	Gly	His	His	Asn	Glu	Phe	Asp	Asp	Glu	Phe
						245			250			255			
Glu	Asp	Asp	Asp	Pro	Leu	Pro	Ala	Ile	Gly	His	Cys	Lys	Ala	Ile	Tyr
						260			265			270			
Pro	Phe	Asp	Gly	His	Asn	Glu	Gly	Thr	Leu	Ala	Met	Lys	Glu	Gly	Glu
						275			280			285			

Val Leu Tyr Ile Ile Glu Glu Asp Lys Gly Asp Gly Trp Thr Arg Ala
 290 295 300
 Arg Arg Gln Asn Gly Glu Glu Gly Tyr Val Pro Thr Ser Tyr Ile Asp
 305 310 315 320
 Val Thr Leu Glu Lys Asn Ser Lys Gly Ser
 325 330

<210> 68
 <211> 592
 <212> PRT
 <213> Homo sapiens

<400> 68
 Met Ser Trp Gly Thr Glu Leu Trp Asp Gln Phe Asp Asn Leu Glu Lys
 1 5 10 15

His Thr Gln Trp Gly Ile Asp Ile Leu Glu Lys Tyr Ile Lys Phe Val
 20 25 30

Lys Glu Arg Thr Glu Ile Glu Leu Ser Tyr Ala Lys Gln Leu Arg Asn
 35 40 45

Leu Ser Lys Lys Tyr Gln Pro Lys Lys Asn Ser Lys Glu Glu Glu
 50 55 60

Tyr Lys Tyr Thr Ser Cys Lys Ala Phe Ile Ser Asn Leu Asn Glu Met
 65 70 75 80

Asn Asp Tyr Ala Gly Gln His Glu Val Ile Ser Glu Asn Met Ala Ser
 85 90 95

Gln Ile Ile Val Asp Leu Ala Arg Tyr Val Gln Glu Leu Lys Gln Glu
 100 105 110

Arg Lys Ser Asn Phe His Asp Gly Arg Lys Ala Gln Gln His Ile Glu
 115 120 125

Thr Cys Trp Lys Gln Leu Glu Ser Ser Lys Arg Arg Phe Glu Arg Asp
 130 135 140

Cys Lys Glu Ala Asp Arg Ala Gln Gln Tyr Phe Glu Lys Met Asp Ala
 145 150 155 160

Asp Ile Asn Val Thr Lys Ala Asp Val Glu Lys Ala Arg Gln Gln Ala
 165 170 175

Gln Ile Arg His Gln Met Ala Glu Asp Ser Lys Ala Asp Tyr Ser Ser
 180 185 190

Ile Leu Gln Lys Phe Asn His Glu Gln His Glu Tyr Tyr His Thr His
 195 200 205

Ile Pro Asn Ile Phe Gln Lys Ile Gln Glu Met Glu Glu Arg Arg Ile
 210 215 220

Val Arg Met Gly Glu Ser Met Lys Thr Tyr Ala Glu Val Asp Arg Gln
225 230 235 240

Val Ile Pro Ile Ile Gly Lys Cys Leu Asp Gly Ile Val Lys Ala Ala
245 250 255

Glu Ser Ile Asp Gln Lys Asn Asp Ser Gln Leu Val Ile Glu Ala Tyr
260 265 270

Lys Ser Gly Phe Glu Pro Pro Gly Asp Ile Glu Phe Glu Asp Tyr Thr
275 280 285

Gln Pro Met Lys Arg Thr Val Ser Asp Asn Ser Leu Ser Asn Ser Arg
290 295 300

Gly Glu Gly Lys Pro Asp Leu Lys Phe Gly Gly Lys Ser Lys Gly Lys
305 310 315 320

Leu Trp Pro Phe Ile Lys Lys Asn Lys Ser Pro Lys Gln Gln Lys Glu
325 330 335

Pro Leu Ser His Arg Phe Asn Glu Phe Met Thr Ser Lys Pro Lys Ile
340 345 350

His Cys Phe Arg Ser Leu Lys Arg Gly Leu Ser Leu Lys Leu Gly Ala
355 360 365

Thr Pro Glu Asp Phe Ser Asn Leu Pro Pro Glu Gln Arg Arg Lys Lys
370 375 380

Leu Gln Gln Lys Val Asp Glu Leu Asn Lys Glu Ile Gln Lys Glu Met
385 390 395 400

Asp Gln Arg Asp Ala Ile Thr Lys Met Lys Asp Val Tyr Leu Lys Asn
405 410 415

Pro Gln Met Gly Asp Pro Ala Ser Leu Asp His Lys Leu Ala Glu Val
420 425 430

Ser Gln Asn Ile Glu Lys Leu Arg Val Glu Thr Gln Lys Phe Glu Ala
435 440 445

Trp Leu Ala Glu Val Glu Gly Arg Leu Pro Ala Arg Asn Glu Gln Ala
450 455 460

Arg Arg Gln Ser Gly Leu Tyr Asp Ser Gln Asn Pro Pro Thr Val Asn
465 470 475 480

Asn Cys Ala Gln Asp Arg Glu Ser Pro Asp Gly Ser Tyr Thr Glu Glu
485 490 495

Gln Ser Gln Glu Ser Glu Met Lys Val Leu Ala Thr Asp Phe Asp Asp
500 505 510

Glu Phe Asp Asp Glu Glu Pro Leu Pro Ala Ile Gly Thr Cys Lys Ala
515 520 525

Leu	Tyr	Thr	Phe	Glu	Gly	Gln	Asn	Glu	Gly	Thr	Ile	Ser	Val	Val	Glu
530				535						540					
Gly	Glu	Thr	Leu	Tyr	Val	Ile	Glu	Glu	Asp	Lys	Gly	Asp	Gly	Trp	Thr
545			550				555			560					
Arg	Ile	Arg	Arg	Asn	Glu	Asp	Glu	Glu	Gly	Tyr	Val	Pro	Thr	Ser	Tyr
	565				570			575							
Val	Glu	Val	Cys	Leu	Asp	Lys	Asn	Ala	Lys	Gly	Ala	Lys	Thr	Tyr	Ile
	580				585				590						

<210> 69
<211> 679
<212> PRT
<213> Homo sapiens

<400> 69															
Leu	Trp	Asn	Gly	Gly	Glu	Glu	Glu	Pro	Pro	Arg	Arg	Pro	Arg	Ala	Arg
1				5				10				15			
Ser	Cys	Glu	Pro	Glu	Glu	Ala	Ala	Arg	Thr	Pro	Gly	Phe	Pro	Pro	Ser
		20				25				30					
Arg	Gly	Ser	Arg	Gly	Ala	Lys	Gly	Ser	Pro	Gly	Arg	Gly	Thr	Arg	Glu
		35				40			45						
Pro	Arg	Pro	Pro	Arg	Gly	Ala	Pro	Leu	Arg	Val	Pro	Cys	Thr	Met	Ser
		50				55			60						
Trp	Gly	Thr	Glu	Leu	Trp	Asp	Gln	Phe	Asp	Asn	Leu	Glu	Lys	His	Thr
		65				70			75			80			
Gln	Trp	Gly	Ile	Asp	Ile	Leu	Glu	Lys	Tyr	Ile	Lys	Phe	Val	Lys	Glu
			85				90			95					
Arg	Thr	Glu	Ile	Glu	Leu	Ser	Tyr	Ala	Lys	Gln	Leu	Arg	Asn	Leu	Ser
			100			105			110						
Lys	Lys	Tyr	Gln	Pro	Lys	Lys	Asn	Ser	Lys	Glu	Glu	Glu	Tyr	Lys	
			115			120			125						
Tyr	Thr	Ser	Cys	Lys	Ala	Phe	Ile	Ser	Asn	Leu	Asn	Glu	Met	Asn	Asp
			130			135			140						
Tyr	Ala	Gly	Gln	His	Glu	Val	Ile	Ser	Glu	Asn	Met	Ala	Ser	Gln	Ile
			145			150			155			160			
Ile	Val	Asp	Leu	Ala	Arg	Tyr	Val	Gln	Glu	Leu	Lys	Gln	Glu	Arg	Lys
			165				170			175					
Ser	Asn	Phe	His	Asp	Gly	Arg	Lys	Ala	Gln	Gln	His	Ile	Glu	Thr	Cys

180	185	190
Trp Lys Gln Leu Glu Ser Ser	Lys Arg Arg Phe Glu Arg Asp Cys Lys	
195	200	205
Glu Ala Asp Arg Ala Gln Gln Tyr Phe Glu Lys Met Asp Ala Asp Ile		
210	215	220
Asn Val Thr Lys Ala Asp Val Glu Lys Ala Arg Gln Gln Ala Gln Ile		
225	230	235
Arg His Gln Met Ala Glu Asp Ser Lys Ala Asp Tyr Ser Ser Ile Leu		
245	250	255
Gln Lys Phe Asn His Glu Gln His Glu Tyr Tyr His Thr His Ile Pro		
260	265	270
Asn Ile Phe Gln Lys Ile Gln Glu Met Glu Glu Arg Arg Ile Val Arg		
275	280	285
Met Gly Glu Ser Met Lys Thr Tyr Ala Glu Val Asp Arg Gln Val Ile		
290	295	300
Pro Ile Ile Gly Lys Cys Leu Asp Gly Ile Val Lys Ala Ala Glu Ser		
305	310	315
Ile Asp Gln Lys Asn Asp Ser Gln Leu Val Ile Glu Ala Tyr Lys Ser		
325	330	335
Gly Phe Glu Pro Pro Gly Asp Ile Glu Phe Glu Asp Tyr Thr Gln Pro		
340	345	350
Met Lys Arg Thr Val Ser Asp Asn Ser Leu Ser Asn Ser Arg Gly Glu		
355	360	365
Gly Lys Pro Asp Leu Lys Phe Gly Gly Lys Ser Lys Gly Lys Leu Trp		
370	375	380
Pro Phe Ile Lys Lys Asn Lys Leu Met Ser Leu Leu Thr Ser Pro His		
385	390	395
400		
Gln Pro Pro Pro Pro Ala Ser Ala Ser Pro Ser Ala Val Pro		
405	410	415
Asn Gly Pro Gln Ser Pro Lys Gln Gln Lys Glu Pro Leu Ser His Arg		
420	425	430
Phe Asn Glu Phe Met Thr Ser Lys Pro Lys Ile His Cys Phe Arg Ser		
435	440	445
Leu Lys Arg Gly Leu Ser Leu Lys Leu Gly Ala Thr Pro Glu Asp Phe		
450	455	460
Ser Asn Leu Pro Pro Glu Gln Arg Arg Lys Lys Leu Gln Gln Lys Val		
465	470	475
Asp Glu Leu Asn Lys Glu Ile Gln Lys Glu Met Asp Gln Arg Asp Ala		

485	490	495
Ile Thr Lys Met Lys Asp Val Tyr Leu Lys Asn Pro Gln Met Gly Asp		
500	505	510
Pro Ala Ser Leu Asp His Lys Leu Ala Glu Val Ser Gln Asn Ile Glu		
515	520	525
Lys Leu Arg Val Glu Thr Gln Lys Phe Glu Ala Trp Leu Ala Glu Val		
530	535	540
Glu Gly Arg Leu Pro Ala Arg Ser Glu Gln Ala Arg Arg Gln Ser Gly		
545	550	555
Leu Tyr Asp Ser Gln Asn Pro Pro Thr Val Asn Asn Cys Ala Gln Asp		
565	570	575
Arg Glu Ser Pro Asp Gly Ser Tyr Thr Glu Glu Gln Ser Gln Glu Ser		
580	585	590
Glu Met Lys Val Leu Ala Thr Asp Phe Asp Asp Glu Phe Asp Asp Glu		
595	600	605
Glu Pro Leu Pro Ala Ile Gly Thr Cys Lys Ala Leu Tyr Thr Phe Glu		
610	615	620
Gly Gln Asn Glu Gly Thr Ile Ser Val Val Glu Gly Glu Thr Leu Tyr		
625	630	635
Val Ile Glu Glu Asp Lys Gly Asp Gly Trp Thr Arg Ile Arg Arg Asn		
645	650	655
Glu Asp Glu Glu Gly Tyr Val Pro Thr Ser Tyr Val Glu Val Cys Leu		
660	665	670
Asp Lys Asn Ala Lys Asp Ser		
675		
<210> 70		
<211> 674		
<212> PRT		
<213> Homo sapiens		
<400> 70		
Glu Glu Glu Pro Pro Arg Arg Pro Arg Ala Arg Ser Cys Glu Pro Glu		
1	5	10
15		
Glu Ala Ala Arg Thr Pro Gly Phe Pro Pro Ser Arg Gly Ser Arg Gly		
20	25	30
Ala Lys Gly Ser Pro Gly Arg Gly Thr Arg Glu Pro Arg Pro Pro Arg		
35	40	45
Gly Ala Pro Leu Arg Val Pro Cys Thr Met Ser Trp Gly Thr Glu Leu		
50	55	60

Trp Asp Gln Phe Asp Asn Leu Glu Lys His Thr Gln Trp Gly Ile Asp
 65 70 75 80

Ile Leu Glu Lys Tyr Ile Lys Phe Val Lys Glu Arg Thr Glu Ile Glu
 85 90 95

Leu Ser Tyr Ala Lys Gln Leu Arg Asn Leu Ser Lys Lys Tyr Gln Pro
 100 105 110

Lys Lys Asn Ser Lys Glu Glu Glu Tyr Lys Tyr Thr Ser Cys Lys
 115 120 125

Ala Phe Ile Ser Asn Leu Asn Glu Met Asn Asp Tyr Ala Gly Gln His
 130 135 140

Glu Val Ile Ser Glu Asn Met Ala Ser Gln Ile Ile Val Asp Leu Ala
 145 150 155 160

Arg Tyr Val Gln Glu Leu Lys Gln Glu Arg Lys Ser Asn Phe His Asp
 165 170 175

Gly Arg Lys Ala Gln Gln His Ile Glu Thr Cys Trp Lys Gln Leu Glu
 180 185 190

Ser Ser Lys Arg Arg Phe Glu Arg Asp Cys Lys Glu Ala Asp Arg Ala
 195 200 205

Gln Gln Tyr Phe Glu Lys Met Asp Ala Asp Ile Asn Val Thr Lys Ala
 210 215 220

Asp Val Glu Lys Ala Arg Gln Gln Ala Gln Ile Arg His Gln Met Ala
 225 230 235 240

Glu Asp Ser Lys Ala Asp Tyr Ser Ser Ile Leu Gln Lys Phe Asn His
 245 250 255

Glu Gln His Glu Tyr Tyr His Thr His Ile Pro Asn Ile Phe Gln Lys
 260 265 270

Ile Gln Glu Met Glu Glu Arg Arg Ile Val Arg Met Gly Glu Ser Met
 275 280 285

Lys Thr Tyr Ala Glu Val Asp Arg Gln Val Ile Pro Ile Ile Gly Lys
 290 295 300

Cys Leu Asp Gly Ile Val Lys Ala Ala Glu Ser Ile Asp Gln Lys Asn
 305 310 315 320

Asp Ser Gln Leu Val Ile Glu Ala Tyr Lys Ser Gly Phe Glu Pro Pro
 325 330 335

Gly Asp Ile Glu Phe Glu Asp Tyr Thr Gln Pro Met Lys Arg Thr Val
 340 345 350

Ser Asp Asn Ser Leu Ser Asn Ser Arg Gly Glu Gly Lys Pro Asp Leu
 355 360 365

Lys Phe Gly Gly Lys Ser Lys Gly Lys Leu Trp Pro Phe Ile Lys Lys
370 375 380

Asn Lys Leu Met Ser Leu Leu Thr Ser Pro His Gln Pro Pro Pro Pro
385 390 395 400

Pro Pro Ala Ser Ala Ser Pro Ser Ala Val Pro Asn Gly Pro Gln Ser
405 410 415

Pro Lys Gln Gln Lys Glu Pro Leu Ser His Arg Phe Asn Glu Phe Met
420 425 430

Thr Ser Lys Pro Lys Ile His Cys Phe Arg Ser Leu Lys Arg Gly Leu
435 440 445

Ser Leu Lys Leu Gly Ala Thr Pro Glu Asp Phe Ser Asn Leu Pro Pro
450 455 460

Glu Gln Arg Arg Lys Lys Leu Gln Gln Lys Val Asp Glu Leu Asn Lys
465 470 475 480

Glu Ile Gln Lys Glu Met Asp Gln Arg Asp Ala Ile Thr Lys Met Lys
485 490 495

Asp Val Tyr Leu Lys Asn Pro Gln Met Gly Asp Pro Ala Ser Leu Asp
500 505 510

His Lys Leu Ala Glu Val Ser Gln Asn Ile Glu Lys Leu Arg Val Glu
515 520 525

Thr Gln Lys Phe Glu Ala Trp Leu Ala Glu Val Glu Gly Arg Leu Pro
530 535 540

Ala Arg Ser Glu Gln Ala Arg Arg Gln Ser Gly Leu Tyr Asp Ser Gln
545 550 555 560

Asn Pro Pro Thr Val Asn Asn Cys Ala Gln Asp Arg Glu Ser Pro Asp
565 570 575

Gly Ser Tyr Thr Glu Glu Gln Ser Gln Glu Ser Glu Met Lys Val Leu
580 585 590

Ala Thr Asp Phe Asp Asp Glu Phe Asp Asp Glu Glu Pro Leu Pro Ala
595 600 605

Ile Gly Thr Cys Lys Ala Leu Tyr Thr Phe Glu Gly Gln Asn Glu Gly
610 615 620

Thr Ile Ser Val Val Glu Gly Glu Thr Leu Tyr Val Ile Glu Glu Asp
625 630 635 640

Lys Gly Asp Gly Trp Thr Arg Ile Arg Arg Asn Glu Asp Glu Glu Gly
645 650 655

Tyr Val Pro Thr Ser Tyr Val Glu Val Cys Leu Asp Lys Asn Ala Lys
660 665 670

Asp Ser

<210> 71
<211> 457
<212> PRT
<213> Homo sapiens

<400> 71
Met Ser Leu Met Leu Asp Asp Gln Pro Pro Met Glu Ala Gln Tyr Ala
1 5 10 15

Glu Glu Gly Pro Gly Pro Gly Ile Phe Arg Ala Glu Pro Gly Asp Gln
20 25 30

Gln His Pro Ile Ser Gln Ala Val Cys Trp Arg Ser Met Arg Arg Gly
35 40 45

Cys Ala Val Leu Gly Ala Leu Gly Leu Leu Ala Gly Ala Gly Val Gly
50 55 60

Ser Trp Leu Leu Val Leu Tyr Leu Cys Pro Ala Ala Ser Gln Pro Ile
65 70 75 80

Ser Gly Thr Leu Gln Asp Glu Glu Ile Thr Leu Ser Cys Ser Glu Ala
85 90 95

Ser Ala Glu Glu Ala Leu Leu Pro Ala Leu Pro Lys Thr Val Ser Phe
100 105 110

Arg Ile Asn Ser Glu Asp Phe Leu Leu Glu Ala Gln Val Arg Asp Gln
115 120 125

Pro Arg Trp Leu Leu Val Cys His Glu Gly Trp Ser Pro Ala Leu Gly
130 135 140

Leu Gln Ile Cys Trp Ser Leu Gly His Leu Arg Leu Thr His His Lys
145 150 155 160

Gly Val Asn Leu Thr Asp Ile Lys Leu Asn Ser Ser Gln Glu Phe Ala
165 170 175

Gln Leu Ser Pro Arg Leu Gly Gly Phe Leu Glu Glu Ala Trp Gln Pro
180 185 190

Arg Asn Asn Cys Thr Ser Gly Gln Val Val Ser Leu Arg Cys Ser Glu
195 200 205

Cys Gly Ala Arg Pro Leu Ala Ser Arg Ile Val Gly Gly Gln Ser Val
210 215 220

Ala Pro Gly Arg Trp Pro Trp Gln Ala Ser Val Ala Leu Gly Phe Arg
225 230 235 240

His Thr Cys Gly Gly Ser Val Leu Ala Pro Arg Trp Val Val Thr Ala
245 250 255

Ala His Cys Met His Ser Phe Arg Leu Ala Arg Leu Ser Ser Trp Arg
 260 265 270
 Val His Ala Gly Leu Val Ser His Ser Ala Val Arg Pro His Gln Gly
 275 280 285
 Ala Leu Val Glu Arg Ile Ile Pro His Pro Leu Tyr Ser Ala Gln Asn
 290 295 300
 His Asp Tyr Asp Val Ala Leu Leu Arg Leu Gln Thr Ala Leu Asn Phe
 305 310 315 320
 Ser Asp Thr Val Gly Ala Val Cys Leu Pro Ala Lys Glu Gln His Phe
 325 330 335
 Pro Lys Gly Ser Arg Cys Trp Val Ser Gly Trp Gly His Thr His Pro
 340 345 350
 Ser His Thr Tyr Ser Ser Asp Met Leu Gln Asp Thr Val Val Pro Leu
 355 360 365
 Phe Ser Thr Gln Leu Cys Asn Ser Ser Cys Val Tyr Ser Gly Ala Leu
 370 375 380
 Thr Pro Arg Met Leu Cys Ala Gly Tyr Leu Asp Gly Arg Ala Asp Ala
 385 390 395 400
 Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Pro Asp Gly Asp Thr
 405 410 415
 Trp Arg Leu Val Gly Val Val Ser Trp Gly Arg Ala Cys Ala Glu Pro
 420 425 430
 Asn His Pro Gly Val Tyr Ala Lys Val Ala Glu Phe Leu Asp Trp Ile
 435 440 445
 His Asp Thr Ala Gln Asp Ser Leu Leu
 450 455

<210> 72
 <211> 455
 <212> PRT
 <213> Mus musculus

<400> 72
 Met Ser Pro Thr Leu Asp Asp Gln Ser Pro Met Glu Ile Arg Cys Thr
 1 5 10 15
 Glu Glu Gly Ala Gly Pro Gly Ile Phe Arg Met Glu Leu Gly Asp Gln
 20 25 30
 Arg Gln Ser Ile Ser Gln Ser Gln Arg Trp Cys Cys Leu Gln Arg Gly
 35 40 45
 Cys Val Ile Leu Gly Val Leu Gly Leu Leu Ala Gly Ala Gly Ile Ala

50	55	60
Ser Trp Leu Leu Val Leu Tyr Leu Trp Pro Ala Ala Ser Pro Ser Ile		
65	70	75
Ser Gly Thr Leu Gln Glu Glu Glu Met Thr Leu Asn Cys Pro Gly Val		
85	90	95
Ser Cys Glu Glu Glu Leu Leu Pro Ser Leu Pro Lys Thr Val Ser Phe		
100	105	110
Arg Ile Asn Gly Glu Asp Leu Leu Gln Val Gln Val Arg Ala Arg		
115	120	125
Pro Asp Trp Leu Leu Val Cys His Glu Gly Trp Ser Pro Ala Leu Gly		
130	135	140
Met His Ile Cys Lys Ser Leu Gly His Ile Arg Leu Thr Gln His Lys		
145	150	155
Ala Val Asn Leu Ser Asp Ile Lys Leu Asn Arg Ser Gln Glu Phe Ala		
165	170	175
Gln Leu Ser Ala Arg Pro Gly Gly Leu Val Glu Glu Ala Trp Lys Pro		
180	185	190
Ser Ala Asn Cys Pro Ser Gly Arg Ile Val Ser Leu Lys Cys Ser Glu		
195	200	205
Cys Gly Ala Arg Pro Leu Ala Ser Arg Ile Val Gly Gly Gln Ala Val		
210	215	220
Ala Ser Gly Arg Trp Pro Trp Gln Ala Ser Val Met Leu Gly Ser Arg		
225	230	235
His Thr Cys Gly Ala Ser Val Leu Ala Pro His Trp Val Val Thr Ala		
245	250	255
Ala His Cys Met Tyr Ser Phe Arg Leu Ser Arg Leu Ser Ser Trp Arg		
260	265	270
Val His Ala Gly Leu Val Ser His Gly Ala Val Arg Gln His Gln Gly		
275	280	285
Thr Met Val Glu Lys Ile Ile Pro His Pro Leu Tyr Ser Ala Gln Asn		
290	295	300
His Asp Tyr Asp Val Ala Leu Leu Gln Leu Arg Thr Pro Ile Asn Phe		
305	310	315
320		
Ser Asp Thr Val Asp Ala Val Cys Leu Pro Ala Lys Glu Gln Tyr Phe		
325	330	335
Pro Trp Gly Ser Gln Cys Trp Val Ser Gly Trp Gly His Thr Asp Pro		
340	345	350
Ser His Thr His Ser Ser Asp Thr Leu Gln Asp Thr Met Val Pro Leu		

355

360

365

Leu Ser Thr His Leu Cys Asn Ser Ser Cys Met Tyr Ser Gly Ala Leu
370 375 380

Thr His Arg Met Leu Cys Ala Gly Tyr Leu Asp Gly Arg Ala Asp Ala
385 390 395 400

Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Pro Ser Gly Asp Thr
405 410 415

Trp His Leu Val Gly Val Val Ser Trp Gly Arg Gly Cys Ala Glu Pro
420 425 430

Asn Arg Pro Gly Val Tyr Ala Lys Val Ala Glu Phe Leu Asp Trp Ile
435 440 445

His Asp Thr Val Gln Val Arg
450 455

<210> 73

<211> 445

<212> PRT

<213> Mus musculus

<400> 73

Met Glu Ile Arg Cys Thr Glu Glu Gly Ala Gly Pro Gly Ile Phe Arg
1 5 10 15

Met Glu Leu Gly Asp Gln Arg Gln Ser Ile Ser Gln Ser Gln Arg Trp
20 25 30

Cys Cys Leu Gln Arg Gly Cys Val Ile Leu Gly Val Leu Gly Leu Leu
35 40 45

Ala Gly Ala Gly Ile Ala Ser Trp Leu Leu Val Leu Tyr Leu Trp Pro
50 55 60

Ala Ala Ser Pro Ser Ile Ser Gly Thr Leu Gln Glu Glu Glu Met Thr
65 70 75 80

Leu Asn Cys Pro Gly Val Ser Cys Glu Glu Glu Leu Leu Pro Ser Leu
85 90 95

Pro Lys Thr Val Ser Phe Arg Ile Asn Gly Glu Asp Leu Leu Leu Gln
100 105 110

Val Gln Val Arg Ala Arg Pro Asp Trp Leu Leu Val Cys His Glu Gly
115 120 125

Trp Ser Pro Ala Leu Gly Met His Ile Cys Lys Ser Leu Gly His Ile
130 135 140

Arg Leu Thr Gln His Lys Ala Val Asn Leu Ser Asp Ile Lys Leu Asn
145 150 155 160

Arg Ser Gln Glu Phe Ala Gln Leu Ser Ala Arg Pro Gly Gly Leu Val
 165 170 175
 Glu Glu Ala Trp Lys Pro Ser Ala Asn Cys Pro Ser Gly Arg Ile Val
 180 185 190
 Ser Leu Lys Cys Ser Glu Cys Gly Ala Arg Pro Leu Ala Ser Arg Ile
 195 200 205
 Val Gly Gly Gln Ala Val Ala Ser Gly Arg Trp Pro Trp Gln Ala Ser
 210 215 220
 Val Met Leu Gly Ser Arg His Thr Cys Gly Ala Ser Val Leu Ala Pro
 225 230 235 240
 His Trp Val Val Thr Ala Ala His Cys Met Tyr Ser Phe Arg Leu Ser
 245 250 255
 Arg Leu Ser Ser Trp Arg Val His Ala Gly Leu Val Ser His Gly Ala
 260 265 270
 Val Arg Gln His Gln Gly Thr Met Val Glu Lys Ile Ile Pro His Pro
 275 280 285
 Leu Tyr Ser Ala Gln Asn His Asp Tyr Asp Val Ala Leu Leu Gln Leu
 290 295 300
 Arg Thr Pro Ile Asn Phe Ser Asp Thr Val Gly Ala Val Cys Leu Pro
 305 310 315 320
 Ala Lys Glu Gln Tyr Phe Pro Trp Gly Ser Gln Cys Trp Val Ser Gly
 325 330 335
 Trp Gly His Thr Asp Pro Ser His Thr His Ser Ser Asp Thr Leu Gln
 340 345 350
 Asp Thr Met Val Pro Leu Leu Ser Thr His Leu Cys Asn Ser Ser Cys
 355 360 365
 Met Tyr Ser Gly Ala Leu Thr His Arg Met Leu Cys Ala Gly Tyr Leu
 370 375 380
 Asp Gly Arg Ala Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu Val
 385 390 395 400
 Cys Pro Ser Gly Asp Thr Trp His Leu Val Gly Val Val Ser Trp Gly
 405 410 415
 Arg Gly Cys Ala Glu Pro Asn Arg Pro Gly Val Tyr Ala Lys Val Ala
 420 425 430
 Glu Phe Leu Asp Trp Ile His Asp Thr Val Gln Val Arg
 435 440 445

<210> 74
 <211> 398

<212> PRT

<213> Homo sapiens

<400> 74

Met Ser Leu Met Leu Asp Asp Gln Pro Pro Met Glu Ala Gln Tyr Ala
1 5 10 15

Glu Glu Gly Pro Gly Pro Gly Ile Phe Arg Ala Glu Pro Gly Asp Gln
20 25 30

Gln His Pro Ile Ser Gln Ala Val Cys Trp Arg Ser Met Arg Arg Gly
35 40 45

Cys Ala Val Leu Gly Ala Leu Gly Leu Ala Gly Ala Gly Val Gly
50 55 60

Ser Trp Leu Leu Val Leu Tyr Leu Cys Pro Ala Ala Ser Gln Pro Ile
65 70 75 80

Ser Gly Thr Leu Gln Asp Glu Glu Ile Thr Leu Ser Cys Ser Glu Ala
85 90 95

Ser Ala Glu Glu Ala Leu Leu Pro Ala Leu Pro Lys Thr Val Ser Phe
100 105 110

Arg Ile Asn Ser Glu Asp Phe Leu Leu Glu Ala Gln Val Arg Asp Gln
115 120 125

Pro Arg Trp Leu Leu Val Cys His Glu Gly Trp Ser Pro Ala Leu Gly
130 135 140

Leu Gln Ile Cys Trp Ser Leu Gly His Leu Arg Leu Thr His His Lys
145 150 155 160

Gly Val Asn Leu Thr Asp Ile Lys Leu Asn Ser Ser Gln Glu Phe Ala
165 170 175

Gln Leu Ser Pro Arg Leu Gly Gly Phe Leu Glu Glu Ala Trp Gln Pro
180 185 190

Arg Asn Asn Cys Thr Ser Gly Gln Val Val Ser Leu Arg Cys Ser Glu
195 200 205

Cys Gly Ala Arg Pro Leu Ala Ser Arg Ile Val Gly Gly Gln Ser Val
210 215 220

Ala Pro Gly Arg Trp Pro Trp Gln Ala Ser Val Ala Leu Gly Phe Arg
225 230 235 240

His Thr Cys Gly Gly Ser Val Leu Ala Pro Arg Trp Val Val Thr Ala
245 250 255

Ala His Cys Met His Ser Phe Arg Leu Ala Arg Leu Ser Ser Trp Arg
260 265 270

Val His Ala Gly Leu Val Ser His Ser Ala Val Arg Pro His Gln Gly
275 280 285

Ala Leu Val Glu Arg Ile Ile Pro His Pro Leu Tyr Ser Ala Gln Asn
 290 295 300

 His Asp Tyr Asp Val Ala Leu Leu Arg Leu Gln Thr Ala Leu Asn Phe
 305 310 315 320

 Ser Asp Thr Val Gly Ala Val Cys Leu Pro Ala Lys Glu Gln His Phe
 325 330 335

 Pro Lys Gly Ser Arg Cys Trp Val Ser Gly Trp Gly His Thr His Pro
 340 345 350

 Ser His Ser Leu Gln Leu Gly Tyr Ala Pro Gly His Gly Gly Ala Leu
 355 360 365

 Val Gln His Ser Ala Leu Gln Gln Leu Leu Arg Val Gln Arg Ser Pro
 370 375 380

 His Pro Pro His Ala Leu Arg Trp Leu Pro Gly Arg Lys Gly
 385 390 395

<210> 75
<211> 311
<212> PRT
<213> Mus musculus

<400> 75
Met His Ile Cys Lys Ser Leu Gly His Ile Arg Leu Thr Gln His Lys
1 5 10 15

Ala Val Asn Leu Ser Asp Ile Lys Leu Asn Arg Ser Gln Glu Phe Ala
20 25 30

Gln Leu Ser Ala Arg Pro Gly Gly Leu Val Glu Glu Ala Trp Lys Pro
35 40 45

Ser Ala Asn Cys Pro Ser Gly Arg Ile Val Ser Leu Lys Cys Ser Glu
50 55 60

Cys Gly Ala Arg Pro Leu Ala Ser Arg Ile Val Gly Gly Gln Ala Val
65 70 75 80

Ala Ser Gly Arg Trp Pro Trp Gln Ala Ser Val Met Leu Gly Ser Arg
85 90 95

His Thr Cys Gly Ala Ser Val Leu Ala Pro His Trp Val Val Thr Ala
100 105 110

Ala His Cys Met Tyr Ser Phe Arg Leu Ser Arg Leu Ser Ser Trp Arg
115 120 125

Val His Ala Gly Leu Val Ser His Gly Ala Val Arg Gln His Gln Gly
130 135 140

Thr Met Val Glu Lys Ile Ile Pro His Pro Leu Tyr Ser Ala Gln Asn

145	150	155	160
His Asp Tyr Asp Val Ala Leu Leu Gln Leu Arg Thr Pro Ile Asn Phe			
165	170	175	
Ser Asp Thr Val Asp Ala Val Cys Leu Pro Ala Lys Glu Gln Tyr Phe			
180	185	190	
Pro Trp Gly Ser Gln Cys Trp Val Ser Gly Trp Gly His Thr Asp Pro			
195	200	205	
Ser His Thr His Ser Ser Asp Thr Leu Gln Asp Thr Met Val Pro Leu			
210	215	220	
Leu Ser Thr His Leu Cys Asn Ser Ser Cys Met Tyr Ser Gly Ala Leu			
225	230	235	240
Thr His Arg Met Leu Cys Ala Gly Tyr Leu Asp Gly Arg Ala Asp Ala			
245	250	255	
Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Pro Ser Gly Asp Thr			
260	265	270	
Trp His Leu Val Gly Val Val Ser Trp Gly Arg Gly Cys Ala Glu Pro			
275	280	285	
Asn Arg Pro Gly Val Tyr Ala Lys Val Ala Glu Phe Leu Asp Trp Ile			
290	295	300	
His Asp Thr Val Gln Val Arg			
305	310		

<210> 76
 <211> 199
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Reprolysin
 family zinc protease Consensus Sequence

<400> 76
 Lys Tyr Ile Glu Leu Phe Ile Val Val Asp His Gly Met Phe Thr Lys
 1 5 10 15

Tyr Gly Ser Asp Leu Asn Lys Ile Arg Gln Arg Val His Gln Ile Val
 20 25 30

Asn Leu Val Asn Glu Ile Tyr Arg Pro Leu Asn Ile Arg Val Val Leu
 35 40 45

Val Gly Leu Glu Ile Trp Ser Asp Gly Asp Lys Ile Thr Val Gln Gly
 50 55 60

Asp Ala Asn Asp Thr Leu His Arg Phe Leu Glu Trp Arg Glu Thr Asp
 65 70 75 80

Leu Leu Lys Arg Lys Ser His Asp Asn Ala Gln Leu Leu Thr Gly Ile
85 90 95

Asp Phe Asp Gly Asn Thr Ile Gly Ala Ala Tyr Val Gly Gly Met Cys
100 105 110

Ser Pro Lys Arg Ser Val Gly Val Val Gln Asp His Ser Pro Ile Val
115 120 125

Leu Leu Val Ala Val Thr Met Ala His Glu Leu Gly His Asn Leu Gly
130 135 140

Met Thr His Asp Asp Ile Asn Lys Cys Thr Cys Glu Gly Gly Gly
145 150 155 160

Cys Ile Met Asn Pro Val Ala Ser Ser Pro Gly Lys Lys Phe Ser
165 170 175

Asn Cys Ser Met Asp Asp Tyr Gln Gln Phe Leu Thr Lys Gly Lys Pro
180 185 190

Gln Cys Leu Leu Asn Lys Pro
195

<210> 77
<211> 51
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Thrombospondin
type 1 Consensus Sequence

<400> 77
Trp Gly Glu Trp Ser Glu Trp Ser Pro Cys Ser Val Thr Cys Gly Gly
1 5 10 15

Gly Val Gln Thr Arg Thr Arg Cys Cys Asn Pro Pro Pro Asn Gly Gly
20 25 30

Gly Pro Cys Thr Gly Pro Asp Thr Glu Thr Arg Ala Cys Asn Glu Gln
35 40 45

Pro Cys Pro
50

<210> 78
<211> 48
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Thrombospondin
type 1 domain Consensus Sequence

<400> 78
Ser Pro Trp Ser Glu Trp Ser Pro Cys Ser Val Thr Cys Gly Lys Gly
1 5 10 15

Ile Arg Thr Arg Gln Arg Thr Cys Asn Ser Pro Ala Gly Gly Lys Pro
20 25 30

Cys Thr Gly Asp Ala Gln Glu Thr Glu Ala Cys Met Met Asp Pro Cys
35 40 45

<210> 79

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Reprolysin
family propeptide Consensus Sequence

<400> 79

His Leu Glu Lys Asn Arg Ser Leu Leu Ala Pro Asp Phe Thr Val Thr
1 5 10 15

Thr Tyr Asp Asp Asp Gly Thr Leu Val Thr Glu His Pro Leu Ile Gln
20 25 30

Asp His Cys Tyr Tyr Gln Gly Tyr Val Glu Gly Tyr Pro Asn Ser Ala
35 40 45

Val Ser Leu Ser Thr Cys Ser Gly Leu Arg Gly Ile Leu Gln Leu Glu
50 55 60

Asn Leu Ser Tyr Gly Ile Glu Pro Leu Glu Ser Ser Asp Gly Phe Glu
65 70 75 80

His Ile Ile Tyr Gln Ile Glu His Leu Lys Thr Val Pro Gly Pro Cys
85 90 95

Gly Glu Cys Gly Ser Leu Ser Val Ser Thr Asp Ser Gln Tyr Gly Ile
100 105 110

Arg Ser Pro Ser Pro
115

<210> 80

<211> 751

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

Alpha-2-macroglobulin family Consensus Sequence

<400> 80
Ile Asp Glu Asp Asp Ile Thr Ile Arg Ser Tyr Phe Pro Glu Ser Trp
1 5 10 15

Leu Trp Glu Val Glu Glu Val Asp Arg Ser Pro Val Leu Thr Val Asn
20 25 30

Ile Thr Leu Pro Asp Ser Ile Thr Thr Trp Glu Ile Leu Ala Val Ser
35 40 45

Leu Ser Asn Thr Lys Gly Leu Cys Val Ala Asp Pro Val Glu Leu Thr
50 55 60

Val Phe Gln Asp Phe Phe Leu Glu Leu Arg Leu Pro Tyr Ser Val Val
65 70 75 80

Arg Gly Glu Gln Val Glu Leu Arg Ala Val Leu Tyr Asn Tyr Leu Pro
85 90 95

Ser Gln Asp Ile Lys Val Val Val Gln Leu Glu Val Glu Pro Leu Cys
100 105 110

Gln Ala Gly Phe Cys Ser Leu Ala Thr Gln Arg Thr Arg Ser Ser Gln
115 120 125

Ser Val Arg Pro Lys Ser Leu Ser Ser Val Ser Phe Pro Val Val Val
130 135 140

Val Pro Leu Ala Ser Gly Leu Ser Leu Val Glu Val Val Ala Ser Val
145 150 155 160

Pro Glu Phe Phe Val Lys Asp Ala Val Val Lys Thr Leu Lys Val Glu
165 170 175

Pro Glu Gly Ala Arg Lys Glu Glu Thr Val Ser Ser Leu Leu Leu Pro
180 185 190

Pro Glu His Leu Gly Gly Leu Glu Val Ser Glu Val Pro Ala Leu
195 200 205

Lys Leu Pro Asp Asp Val Pro Asp Thr Glu Ala Glu Ala Val Ile Ser
210 215 220

Val Gln Gly Asp Pro Val Ala Gln Ala Ile Gln Asn Thr Leu Ser Gly
225 230 235 240

Glu Gly Leu Asn Asn Leu Leu Arg Leu Pro Ser Gly Cys Gly Glu Gln
245 250 255

Asn Met Ile Tyr Met Ala Pro Thr Val Tyr Val Leu His Tyr Leu Asp
260 265 270

Glu Thr Trp Gln Trp Glu Lys Pro Gly Thr Lys Lys Lys Gln Lys Ala
275 280 285

Ile Asp Leu Ile Asn Lys Gly Tyr Gln Arg Gln Leu Asn Tyr Arg Lys
 290 295 300

 Ala Asp Gly Ser Tyr Ala Ala Phe Leu His Arg Ala Ser Ser Thr Trp
 305 310 315 320

 Leu Thr Ala Phe Val Leu Lys Val Phe Ser Gln Ala Arg Asn Tyr Val
 325 330 335

 Phe Ile Asp Glu Glu His Ile Cys Gly Ala Val Lys Trp Leu Ile Leu
 340 345 350

 Asn Gln Gln Lys Asp Asp Gly Val Phe Arg Glu Ser Gly Pro Val Ile
 355 360 365

 His Asn Glu Met Lys Gly Gly Val Gly Asp Asp Ala Glu Val Glu Val
 370 375 380

 Thr Leu Thr Ala Phe Ile Thr Ile Ala Leu Leu Glu Ala Lys Leu Val
 385 390 395 400

 Cys Ile Ser Pro Val Val Ala Asn Ala Leu Ser Ile Leu Lys Ala Ser
 405 410 415

 Asp Tyr Leu Leu Glu Asn Tyr Ala Asn Gly Gln Arg Val Tyr Thr Leu
 420 425 430

 Ala Leu Thr Ala Tyr Ala Leu Ala Leu Ala Gly Val Leu His Lys Leu
 435 440 445

 Lys Glu Ile Leu Lys Ser Leu Lys Glu Glu Leu Tyr Lys Ala Leu Val
 450 455 460

 Lys Gly His Trp Glu Arg Pro Gln Lys Pro Lys Asp Ala Pro Gly His
 465 470 475 480

 Pro Tyr Ser Pro Gln Pro Gln Ala Ala Val Glu Met Thr Ser Tyr
 485 490 495

 Ala Leu Leu Ala Leu Leu Thr Leu Leu Pro Phe Pro Lys Val Glu Met
 500 505 510

 Ala Pro Lys Val Val Lys Trp Leu Thr Glu Gln Gln Tyr Tyr Gly Gly
 515 520 525

 Gly Phe Gly Ser Thr Gln Asp Thr Val Met Ala Leu Gln Ala Leu Ser
 530 535 540

 Lys Tyr Gly Ile Ala Thr Pro Thr His Lys Glu Lys Asn Leu Ser Val
 545 550 555 560

 Thr Ile Gln Ser Pro Ser Gly Ser Phe Lys Ser His Phe Gln Ile Leu
 565 570 575

 Asn Asn Asn Ala Phe Leu Leu Arg Pro Val Glu Leu Pro Leu Asn Glu
 580 585 590

Gly Phe Thr Val Thr Ala Lys Val Thr Gly Gln Gly Thr Leu Thr Leu
 595 600 605
 Val Thr Thr Tyr Arg Tyr Lys Val Leu Asp Lys Lys Asn Thr Phe Cys
 610 615 620
 Phe Asp Leu Lys Ile Glu Thr Val Pro Asp Thr Cys Val Glu Pro Lys
 625 630 635 640
 Gly Ala Lys Asn Ser Asp Tyr Leu Ser Ile Cys Thr Arg Tyr Ala Gly
 645 650 655
 Ser Arg Ser Asp Ser Gly Met Ala Ile Ala Asp Ile Ser Met Leu Thr
 660 665 670
 Gly Phe Ile Pro Leu Lys Pro Asp Leu Lys Lys Leu Glu Asn Gly Val
 675 680 685
 Asp Arg Tyr Val Ser Lys Tyr Glu Ile Asp Gly Asn His Val Leu Leu
 690 695 700
 Tyr Leu Asp Lys Val Ser His Ser Glu Thr Glu Cys Val Gly Phe Lys
 705 710 715 720
 Ile His Gln Asp Phe Glu Val Gly Leu Leu Gln Pro Ala Ser Val Lys
 725 730 735
 Val Tyr Asp Tyr Tyr Glu Pro Asp Glu Gln Cys Thr Ala Phe Tyr
 740 745 750

<210> 81
 <211> 620
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 Alpha-2-macroglobulin family N-terminal region
 Consensus Sequence

<400> 81
 Arg Leu Leu Trp Leu Leu Leu Leu Leu Leu Phe Phe Asp Ser Ser
 1 5 10 15

Leu Gln Lys Pro Arg Tyr Met Val Ile Val Pro Ser Ile Leu Arg Thr
 20 25 30

Glu Thr Pro Glu Lys Val Cys Val Gln Leu His Asp Leu Asn Glu Thr
 35 40 45

Val Thr Val Thr Val Ser Leu His Ser Phe Pro Gly Lys Arg Asn Leu
 50 55 60

Ser Ser Leu Phe Thr Val Leu Leu Ser Ser Lys Asp Leu Phe His Cys
 65 70 75 80

Val Ser Phe Thr Val Pro Gln Pro Gly Leu Phe Lys Ser Ser Lys Gly
 85 90 95

 Glu Glu Ser Phe Val Val Gln Val Lys Gly Pro Thr His Thr Phe
 100 105 110

 Lys Glu Lys Val Thr Val Leu Val Ser Ser Arg Arg Gly Leu Val Phe
 115 120 125

 Ile Gln Thr Asp Lys Pro Ile Tyr Thr Pro Gly Gln Thr Val Arg Tyr
 130 135 140

 Arg Val Phe Ser Val Asp Glu Asn Leu Arg Pro Leu Asn Glu Leu Ile
 145 150 155 160

 Leu Val Tyr Ile Glu Asp Pro Glu Gly Asn Arg Val Asp Gln Trp Glu
 165 170 175

 Val Asn Lys Leu Glu Gly Gly Ile Phe Gln Leu Ser Phe Pro Ile Pro
 180 185 190

 Ser Glu Pro Ile Gln Gly Thr Trp Lys Ile Val Ala Arg Tyr Glu Ser
 195 200 205

 Gly Pro Glu Ser Asn Tyr Thr His Tyr Phe Glu Val Lys Glu Tyr Val
 210 215 220

 Leu Pro Ser Phe Glu Val Ser Ile Thr Pro Pro Lys Pro Phe Ile Tyr
 225 230 235 240

 Tyr Asp Asn Phe Lys Glu Phe Glu Val Thr Ile Cys Ala Arg Tyr Thr
 245 250 255

 Tyr Gly Lys Pro Val Pro Gly Val Ala Tyr Val Arg Phe Gly Val Lys
 260 265 270

 Asp Glu Asp Gly Lys Glu Leu Leu Ala Gly Leu Glu Glu Arg Ala
 275 280 285

 Lys Leu Leu Asp Gly Asn Gly Glu Ile Cys Leu Ser Gln Glu Val Leu
 290 295 300

 Leu Lys Glu Leu Gln Leu Lys Asn Glu Asp Leu Glu Gly Lys Ser Leu
 305 310 315 320

 Tyr Val Ala Val Ala Val Ile Glu Ser Glu Gly Gly Asp Met Glu Glu
 325 330 335

 Ala Glu Leu Gly Gly Ile Lys Ile Val Arg Ser Pro Tyr Lys Leu Lys
 340 345 350

 Phe Val Lys Thr Pro Ser His Phe Lys Pro Gly Ile Pro Phe Phe Leu
 355 360 365

 Lys Val Leu Val Val Asp Pro Asp Gly Ser Pro Ala Pro Asn Val Pro
 370 375 380

Val Lys Val Ser Ala Gln Asp Ala Ser Tyr Tyr Ser Asn Gly Thr Thr
 385 390 395 400

 Asp Glu Asp Gly Leu Ala Gln Phe Ser Ile Asn Thr Ser Gly Ile Ser
 405 410 415

 Ser Leu Ser Ile Thr Val Arg Thr Asn His Lys Glu Leu Pro Glu Glu
 420 425 430

 Val Gln Ala His Ala Glu Ala Gln Ala Thr Ala Tyr Ser Thr Val Ser
 435 440 445

 Leu Ser Lys Ser Tyr Ile His Leu Ser Ile Glu Arg Thr Leu Pro Cys
 450 455 460

 Gly Pro Gly Val Gly Glu Gln Ala Asn Phe Ile Leu Arg Gly Lys Ser
 465 470 475 480

 Leu Gly Glu Leu Lys Ile Leu His Phe Tyr Tyr Leu Ile Met Ser Lys
 485 490 495

 Gly Lys Ile Val Lys Thr Gly Arg Glu Pro Arg Glu Pro Gly Gln Gly
 500 505 510

 Leu Phe Ser Leu Ser Ile Pro Val Thr Pro Asp Leu Ala Pro Ser Phe
 515 520 525

 Arg Leu Val Ala Tyr Tyr Ile Leu Pro Gln Gly Glu Val Val Ala Asp
 530 535 540

 Ser Val Trp Ile Asp Val Glu Asp Cys Cys Ala Asn Lys Leu Asp Leu
 545 550 555 560

 Ser Phe Ser Pro Ser Lys Asp Tyr Arg Leu Pro Ala Gln Gln Val Lys
 565 570 575

 Leu Arg Val Glu Ala Asp Pro Gln Ser Leu Val Ala Leu Arg Ala Val
 580 585 590

 Asp Gln Ala Val Tyr Leu Leu Lys Pro Lys Ala Lys Leu Ser Met Ser
 595 600 605

 Lys Val Tyr Asp Leu Leu Glu Lys Ser Asp Leu Gly
 610 615 620

<210> 82
<211> 186
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Sodium Bile
acid symporter family consensus sequence

<400> 82
Ala Leu Gly Leu Phe Leu Met Met Phe Ser Met Gly Leu Lys Val Arg

1	5	10	15
Phe Glu Asp Leu Lys Glu Ala Leu Arg Arg Pro Lys Ala Leu Ile Leu			
20	25	30	
Gly Leu Leu Leu Gln Trp Ile Ile Met Pro Leu Leu Met Phe Ile Leu			
35	40	45	
Ala Trp Leu Leu Leu Arg Leu Pro Pro Glu Leu Ala Thr Gly Leu Ile			
50	55	60	
Leu Val Gly Cys Ala Pro Gly Gly Ala Met Ser Asn Val Trp Thr Tyr			
65	70	75	80
Leu Ala Lys Gly Asp Val Glu Leu Ser Val Val Met Val Ala Leu Ser			
85	90	95	
Thr Leu Leu Ala Pro Leu Val Thr Pro Leu Leu Ser Phe Leu Leu Ala			
100	105	110	
Gly Leu Leu Val His Val Asp Ala Val Ser Pro Trp Ser Leu Ile Lys			
115	120	125	
Ser Val Leu Val Tyr Val Ile Ile Pro Leu Ile Ala Gly Met Leu Thr			
130	135	140	
Arg Tyr Phe Leu Pro Glu Trp Phe Glu Gln Arg Val Leu Pro Val Leu			
145	150	155	160
Ser Pro Ile Ser Leu Ile Gly Leu Leu Leu Thr Ile Val Val Ile Phe			
165	170	175	
Ala Leu Asn Gly Glu Val Ile Ala Ser Leu			
180	185		
<210> 83			
<211> 191			
<212> PRT			
<213> Artificial Sequence			
<220>			
<223> Description of Artificial Sequence: SPFH			
domain/Band 7 family Consensus Sequence			
<400> 83			
Val Ala Leu Leu Ile Ile Ala Leu Val Val Ile Ala Met Ser Val			
1	5	10	15
Lys Ile Val Lys Glu Tyr Glu Arg Gly Val Ile Phe Arg Leu Gly Arg			
20	25	30	
Tyr Val Arg Gln Val Val Gly Pro Gly Leu His Phe Ile Ile Pro Phe			
35	40	45	
Ile Asp Thr Val Lys Lys Val Asp Leu Arg Thr Val Val Tyr Asp Val			
50	55	60	

Pro Ser Gln Glu Ile Ile Thr Lys Asp Asn Val Val Val Val Ile Val Asp
65 70 75 80

Ala Val Val Tyr Tyr Arg Val Val Asp Pro Leu Lys Ala Val Tyr Glu
85 90 95

Val Glu Asp Ala Glu Arg Ala Leu Pro Gln Leu Ala Gln Thr Thr Leu
100 105 110

Arg Asn Val Ile Gly Gln Phe Thr Leu Asp Glu Ile Leu Thr Glu Arg
115 120 125

Glu Arg Ile Asn Ser Gln Leu Arg Glu Ile Leu Asp Glu Ala Thr Asp
130 135 140

Pro Trp Gly Ile Lys Val Glu Arg Val Glu Ile Lys Asp Ile Arg Leu
145 150 155 160

Pro Glu Glu Val Gln Arg Ala Met Ala Ala Gln Met Glu Ala Glu Arg
165 170 175

Glu Ala Arg Ala Lys Ile Leu Glu Ala Glu Gly Glu Gln Glu Ala
180 185 190

<210> 84

<211> 160

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Prohibitin
homologues Consensus Sequence

<400> 84

Ala Ala Phe Tyr Val Ile Gly Glu Gly Glu Arg Gly Val Val Glu Arg
1 5 10 15

Leu Gly Arg Val Leu Lys Val Leu Gly Pro Gly Leu His Phe Val Ile
20 25 30

Pro Phe Ile Asp Asp Val Lys Arg Val Asp Leu Arg Ala Gln Thr Asp
35 40 45

Asp Val Pro Pro Gln Glu Val Ile Thr Lys Asp Asn Val Thr Val Ser
50 55 60

Val Asp Ala Val Val Tyr Tyr Arg Val Leu Asp Pro Leu Lys Ala Val
65 70 75 80

Tyr Gly Val Leu Asp Ala Asp Tyr Arg Ala Leu Arg Gln Leu Ala Gln
85 90 95

Thr Thr Leu Arg Ser Val Ile Gly Lys Arg Thr Leu Asp Glu Leu Leu
100 105 110

Thr Asp Glu Arg Glu Lys Ile Ser Glu Asn Ile Arg Glu Glu Leu Asn
115 120 125

Glu Ala Ala Glu Pro Trp Gly Ile Glu Val Glu Asp Val Glu Ile Lys
130 135 140

Asp Ile Arg Leu Pro Glu Glu Ile Lys Glu Ala Met Glu Ala Gln Gln
145 150 155 160

<210> 85

<211> 79

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Kringle domain
Consensus Sequence

<400> 85

Cys Tyr His Gly Asn Gly Glu Asn Tyr Arg Gly Thr Ala Ser Thr Thr
1 5 10 15

Glu Ser Gly Ala Pro Cys Gln Arg Trp Asp Ser Gln Thr Pro His Arg
20 25 30

His Ser Lys Tyr Thr Pro Glu Arg Tyr Pro Ala Lys Gly Leu Gly Glu
35 40 45

Asn Tyr Cys Arg Asn Pro Asp Gly Asp Glu Arg Pro Trp Cys Tyr Thr
50 55 60

Thr Asp Pro Arg Val Arg Trp Glu Tyr Cys Asp Ile Pro Arg Cys
65 70 75

<210> 86

<211> 83

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Kringle domain
Consensus Sequence

<400> 86

Arg Asp Cys Tyr Ala Gly Asn Gly Glu Ser Tyr Arg Gly Thr Ala Ser
1 5 10 15

Thr Thr Lys Ser Gly Lys Pro Cys Gln Arg Trp Asp Ser Gln Thr Pro
20 25 30

His Leu His Arg Phe Thr Pro Glu Arg Phe Pro Glu Leu Gly Leu Glu
35 40 45

His Asn Tyr Cys Arg Asn Pro Asp Gly Asp Ser Glu Gly Pro Trp Cys
50 55 60

Tyr Thr Thr Asp Pro Asn Val Arg Trp Glu Tyr Cys Asp Ile Pro Gln
65 70 75 80

Cys Glu Ser

<210> 87

<211> 230

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Trypsin-like
serine protease Consensus Sequence

<400> 87

Arg Ile Val Gly Gly Ser Glu Ala Asn Ile Gly Ser Phe Pro Trp Gln
1 5 10 15

Val Ser Leu Gln Tyr Arg Gly Gly Arg His Phe Cys Gly Gly Ser Leu
20 25 30

Ile Ser Pro Arg Trp Val Leu Thr Ala Ala His Cys Val Tyr Gly Ser
35 40 45

Ala Pro Ser Ser Ile Arg Val Arg Leu Gly Ser His Asp Leu Ser Ser
50 55 60

Gly Glu Glu Thr Gln Thr Val Lys Val Ser Lys Val Ile Val His Pro
65 70 75 80

Asn Tyr Asn Pro Ser Thr Tyr Asp Asn Asp Ile Ala Leu Leu Lys Leu
85 90 95

Ser Glu Pro Val Thr Leu Ser Asp Thr Val Arg Pro Ile Cys Leu Pro
100 105 110

Ser Ser Gly Tyr Asn Val Pro Ala Gly Thr Thr Cys Thr Val Ser Gly
115 120 125

Trp Gly Arg Thr Ser Glu Ser Ser Gly Ser Leu Pro Asp Thr Leu Gln
130 135 140

Glu Val Asn Val Pro Ile Val Ser Asn Ala Thr Cys Arg Arg Ala Tyr
145 150 155 160

Ser Gly Gly Pro Ala Ile Thr Asp Asn Met Leu Cys Ala Gly Gly Leu
165 170 175

Glu Gly Gly Lys Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu Val
180 185 190

Cys Asn Asp Pro Arg Trp Val Leu Val Gly Ile Val Ser Trp Gly Ser
195 200 205

Tyr Gly Cys Ala Arg Pro Asn Lys Pro Gly Val Tyr Thr Arg Val Ser
210 215 220

Ser Tyr Leu Asp Trp Ile
225 230

<210> 88

<211> 217

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Trypsin
Consensus Sequence

<400> 88

Ile Val Gly Gly Arg Glu Ala Gln Ala Gly Ser Phe Pro Trp Gln Val
1 5 10 15

Ser Leu Gln Val Ser Ser Gly His Phe Cys Gly Gly Ser Leu Ile Ser
20 25 30

Glu Asn Trp Val Leu Thr Ala Ala His Cys Val Ser Gly Ala Ser Ser
35 40 45

Val Arg Val Val Leu Gly Glu His Asn Leu Gly Thr Thr Glu Gly Thr
50 55 60

Glu Gln Lys Phe Asp Val Lys Lys Ile Ile Val His Pro Asn Tyr Asn
65 70 75 80

Pro Asp Thr Asn Asp Ile Ala Leu Leu Lys Leu Lys Ser Pro Val Thr
85 90 95

Leu Gly Asp Thr Val Arg Pro Ile Cys Leu Pro Ser Ala Ser Ser Asp
100 105 110

Leu Pro Val Gly Thr Thr Cys Ser Val Ser Gly Trp Gly Arg Thr Lys
115 120 125

Asn Leu Gly Thr Ser Asp Thr Leu Gln Glu Val Val Val Pro Ile Val
130 135 140

Ser Arg Glu Thr Cys Arg Ser Ala Tyr Gly Gly Thr Val Thr Asp Thr
145 150 155 160

Met Ile Cys Ala Gly Ala Leu Gly Gly Lys Asp Ala Cys Gln Gly Asp
165 170 175

Ser Gly Gly Pro Leu Val Cys Ser Asp Gly Glu Leu Val Gly Ile Val
180 185 190

Ser Trp Gly Tyr Gly Cys Ala Val Gly Asn Tyr Pro Gly Val Tyr Thr

195

200

205

Arg Val Ser Arg Tyr Leu Asp Trp Ile
210 215

<210> 89

<211> 79

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Divergent
subfamily of APPLE domains Consensus Sequence

<400> 89

Lys Ser Asp Asp Cys Phe Val Arg Leu Pro Asn Thr Lys Leu Pro Asp
1 5 10 15

Phe Ser Pro Ile Val Ile Ser Val Ala Ser Leu Glu Glu Cys Ala Gln
20 25 30

Lys Cys Leu Asn Ser Asn Cys Ser Cys Arg Ser Phe Thr Tyr Asn Asn
35 40 45

Asp Thr Lys Gly Cys Leu Leu Trp Ser Glu Ser Ser Leu Gly Asp Ala
50 55 60

Arg Gln Leu Leu Pro Ser Gly Gly Val Asp Tyr Tyr Glu Lys Ile
65 70 75

<210> 90

<211> 145

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
Lipocalin/cytosolic fatty-acid binding protein
family Consensus Sequence

<400> 90

Lys Phe Ala Gly Lys Trp Tyr Leu Val Ala Ser Ala Asn Phe Asp Pro
1 5 10 15

Glu Leu Lys Glu Glu Leu Gly Val Leu Glu Ala Thr Arg Lys Glu Ile
20 25 30

Thr Pro Leu Lys Glu Gly Asn Leu Glu Ile Val Phe Asp Gly Asp Lys
35 40 45

Asn Gly Ile Cys Glu Glu Thr Phe Gly Lys Leu Glu Lys Thr Lys Lys
50 55 60

Leu Gly Val Glu Phe Asp Tyr Tyr Thr Gly Asp Asn Arg Phe Val Val
65 70 75 80

Leu Asp Thr Asp Tyr Asp Asn Tyr Leu Leu Val Cys Val Gln Lys Gly
85 90 95

Asp Gly Asn Glu Thr Ser Arg Thr Ala Glu Leu Tyr Gly Arg Thr Pro
100 105 110

Glu Leu Ser Pro Glu Ala Leu Glu Leu Phe Glu Thr Ala Thr Lys Glu
115 120 125

Leu Gly Ile Pro Glu Asp Asn Val Val Cys Thr Arg Gln Thr Glu Arg
130 135 140

Cys
145

<210> 91

<211> 218

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Connexin
Consensus Sequence

<400> 91

Met Asp Trp Ser Phe Leu Gly Arg Leu Leu Glu Gly Val Asn Lys His
1 5 10 15

Ser Thr Ala Ile Gly Lys Ile Trp Leu Ser Val Leu Phe Ile Phe Arg
20 25 30

Ile Leu Val Leu Gly Val Ala Ala Glu Ser Val Trp Gly Asp Glu Gln
35 40 45

Ser Asp Phe Val Cys Asn Thr Gln Gln Pro Gly Cys Glu Asn Val Cys
50 55 60

Tyr Asp Gln Phe Phe Pro Ile Ser His Val Arg Leu Trp Val Leu Gln
65 70 75 80

Leu Ile Phe Val Ser Thr Pro Ser Leu Leu Tyr Leu Gly His Val Ala
85 90 95

Tyr Arg Val Arg Arg Glu Glu Lys Leu Arg Glu Lys Glu Glu His
100 105 110

Ser Lys Gly Leu Tyr Ser Glu Glu Ala Lys Lys Arg Cys Gly Ser Glu
115 120 125

Asp Gly Lys Val Arg Ile Arg Gly Gly Leu Trp Trp Thr Tyr Val Phe
130 135 140

Ser Ile Ile Phe Lys Ser Ile Phe Glu Val Gly Phe Leu Tyr Gly Gln
145 150 155 160

Tyr Leu Leu Tyr Gly Phe Thr Met Ser Pro Leu Val Val Cys Ser Arg
165 170 175

Ala Pro Cys Pro His Thr Val Asp Cys Phe Val Ser Arg Pro Thr Glu
180 185 190

Lys Thr Ile Phe Ile Val Phe Met Leu Val Val Ser Ala Ile Cys Leu
195 200 205

Leu Leu Asn Leu Ala Glu Leu Phe Tyr Leu
210 215

<210> 92

<211> 59

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Src homology 3
domains Consensus Sequence

<400> 92

Glu Gly Pro Gln Val Arg Ala Leu Tyr Asp Tyr Thr Ala Gln Asp Pro
1 5 10 15

Asp Glu Leu Ser Phe Lys Lys Gly Asp Ile Ile Thr Val Leu Glu Lys
20 25 30

Ser Asp Asp Gly Trp Trp Lys Gly Arg Leu Gly Thr Gly Lys Glu Gly
35 40 45

Leu Phe Pro Ser Asn Tyr Val Glu Glu Ile Asp
50 55

<210> 93

<211> 57

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SH3 domain
Consensus Sequence

<400> 93

Pro Lys Val Val Ala Leu Tyr Asp Tyr Gln Ala Arg Glu Ser Asp Glu
1 5 10 15

Leu Ser Phe Lys Lys Gly Asp Ile Ile Val Leu Glu Lys Ser Asp
20 25 30

Asp Gly Gly Trp Trp Lys Gly Arg Leu Lys Gly Thr Lys Glu Gly Leu
35 40 45

Ile Pro Ser Asn Tyr Val Glu Pro Val
50 55

<210> 94
<211> 91
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Fes/CIP4
homology domain Consensus Sequence

<400> 94
Met Gly Phe Trp Ser Glu Leu Asp Asp Gly Phe Glu Ala Leu Leu Ser
1 5 10 15

Arg Leu Lys Asn Gly Leu Arg Leu Leu Glu Asp Leu Lys Lys Phe Met
20 25 30

Arg Glu Arg Ala Lys Ile Glu Glu Tyr Ala Lys Lys Leu Gln Lys
35 40 45

Leu Ser Lys Lys Leu Arg Ala Val Arg Asp Thr Glu Ser Glu Leu Gly
50 55 60

Ser Leu Arg Lys Ala Trp Glu Val Leu Leu Ser Glu Thr Asp Ala Leu
65 70 75 80

Ala Lys Gln His Leu Gln Leu Ser Glu Asp Leu
85 90

<210> 95
<211> 94
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Fes/CIP4
homology domain Consensus Sequence

<400> 95
Met Gly Phe Gly Ser Glu Leu Cys Pro Glu Gly His Lys Ala Leu Leu
1 5 10 15

Ser Arg Gln Asp Asn Glu Leu Arg Leu Leu Glu Glu Met Lys Lys Phe
20 25 30

Met Ala Glu Arg Ala Lys Ile Glu Lys Glu Tyr Ala Gly Lys Leu Gln
35 40 45

His Leu Ser Ala Gln Val Gly Lys Gly Pro Ala Thr Ala Glu Gly Glu
50 55 60

Asp Glu Leu Ser Ser Leu Lys Ser Trp Ala Val Ile Leu Ser Glu Thr
65 70 75 80

Glu Gln Gln Ser Lys Ile His Leu Gln Ile Ser Glu Asp Leu

<210> 96
 <211> 230
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Trypsin-like
 serine protease Consensus Sequence

<400> 96
 Arg Ile Val Gly Gly Ser Glu Ala Asn Ile Gly Ser Phe Pro Trp Gln
 1 5 10 15

Val Ser Leu Gln Tyr Arg Gly Gly Arg His Phe Cys Gly Gly Ser Leu
 20 25 30

Ile Ser Pro Arg Trp Val Leu Thr Ala Ala His Cys Val Tyr Gly Ser
 35 40 45

Ala Pro Ser Ser Ile Arg Val Arg Leu Gly Ser His Asp Leu Ser Ser
 50 55 60

Gly Glu Glu Thr Gln Thr Val Lys Val Ser Lys Val Ile Val His Pro
 65 70 75 80

Asn Tyr Asn Pro Ser Thr Tyr Asp Asn Asp Ile Ala Leu Leu Lys Leu
 85 90 95

Ser Glu Pro Val Thr Leu Ser Asp Thr Val Arg Pro Ile Cys Leu Pro
 100 105 110

Ser Ser Gly Tyr Asn Val Pro Ala Gly Thr Thr Cys Thr Val Ser Gly
 115 120 125

Trp Gly Arg Thr Ser Glu Ser Ser Gly Ser Leu Pro Asp Thr Leu Gln
 130 135 140

Glu Val Asn Val Pro Ile Val Ser Asn Ala Thr Cys Arg Arg Ala Tyr
 145 150 155 160

Ser Gly Gly Pro Ala Ile Thr Asp Asn Met Leu Cys Ala Gly Gly Leu
 165 170 175

Glu Gly Gly Lys Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu Val
 180 185 190

Cys Asn Asp Pro Arg Trp Val Leu Val Gly Ile Val Ser Trp Gly Ser
 195 200 205

Tyr Gly Cys Ala Arg Pro Asn Lys Pro Gly Val Tyr Thr Arg Val Ser
 210 215 220

Ser Tyr Leu Asp Trp Ile
 225 230

<210> 97
 <211> 217
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Trypsin
 Consensus Sequence

<400> 97
 Ile Val Gly Gly Arg Glu Ala Gln Ala Gly Ser Phe Pro Trp Gln Val
 1 5 10 15

Ser Leu Gln Val Ser Ser Gly His Phe Cys Gly Gly Ser Leu Ile Ser
 20 25 30

Glu Asn Trp Val Leu Thr Ala Ala His Cys Val Ser Gly Ala Ser Ser
 35 40 45

Val Arg Val Val Leu Gly Glu His Asn Leu Gly Thr Thr Glu Gly Thr
 50 55 60

Glu Gln Lys Phe Asp Val Lys Lys Ile Ile Val His Pro Asn Tyr Asn
 65 70 75 80

Pro Asp Thr Asn Asp Ile Ala Leu Leu Lys Leu Lys Ser Pro Val Thr
 85 90 95

Leu Gly Asp Thr Val Arg Pro Ile Cys Leu Pro Ser Ala Ser Ser Asp
 100 105 110

Leu Pro Val Gly Thr Thr Cys Ser Val Ser Gly Trp Gly Arg Thr Lys
 115 120 125

Asn Leu Gly Thr Ser Asp Thr Leu Gln Glu Val Val Val Pro Ile Val
 130 135 140

Ser Arg Glu Thr Cys Arg Ser Ala Tyr Gly Gly Thr Val Thr Asp Thr
 145 150 155 160

Met Ile Cys Ala Gly Ala Leu Gly Gly Lys Asp Ala Cys Gln Gly Asp
 165 170 175

Ser Gly Gly Pro Leu Val Cys Ser Asp Gly Glu Leu Val Gly Ile Val
 180 185 190

Ser Trp Gly Tyr Gly Cys Ala Val Gly Asn Tyr Pro Gly Val Tyr Thr
 195 200 205

Arg Val Ser Arg Tyr Leu Asp Trp Ile
 210 215

<210> 98
 <211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV5 Primer 1

<400> 98
ctccccactcc tgctgcttct gact 24

<210> 99
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV5 Primer 2

<400> 99
aaggctgggc ctaacccagt ctcatt 25

<210> 100
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV7 Primer 1

<400> 100
catgaactgg gcatttctgc agg 23

<210> 101
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV7 Primer 2

<400> 101
ttatctgctg atctcgcagg ttatggaa 27

<210> 102
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV8 Primer 1

<400> 102
ctgacaggcc ctgggtgtgtg at 22

<210> 103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV8 Primer 2

<400> 103
tcacacatgt ttcatgtggg agttaga

27

<210> 104
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV9 Primer 1

<400> 104
gagtgagagg tcggacagac tgtg

24

<210> 105
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV9 Primer 2

<400> 105
actcatgcaa ct tgcttctc tcactct

27

<210> 106
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV10b Primer
1

<400> 106
cctatgagcc tgatgctgga tgac

24

<210> 107
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV10b Primer

<400> 107
aggactcaga ggagggagtc ctgag 25

<210> 108
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag4164 Forward

<400> 108
gcactacaag tggaaaggctt ac 22

<210> 109
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag4164 Probe

<400> 109
ctcaagtaga agccgactta tgcaaa 26

<210> 110
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag4164 Reverse

<400> 110
tcaaattcctt ctgcgataca gt 22

<210> 111
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1313b
Forward

<400> 111
cagctgcacg attaatgaag at 22

<210> 112
<211> 25

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1313b Probe

<400> 112
aggccttgg a ctggccttca ccatt 25

<210> 113
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1313b Reverse

<400> 113
ccaaaggatgt gtccagactc at 22

<210> 114
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2197 Forward

<400> 114
ccaaggaga cctcttcata tt 22

<210> 115
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2197 Probe

<400> 115
tcttgcttac ggcataagcg ctctct 26

<210> 116
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2197 Reverse

<400> 116
ttcattttcta tgggacacctca ga 22

<210> 117
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag708 Forward

<400> 117
aaagatggga ctcgtcatga c 21

<210> 118
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag708 Probe

<400> 118
cacgccatct tactgactgg tctgga 26

<210> 119
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag708 Reverse

<400> 119
gtgcaaatcc caaaagtgtca 20

<210> 120
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag4164 Forward

<400> 120
gcactacaag tggaaggcctt ac 22

<210> 121
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag4164 Probe

<400> 121
ctcaagtaga agccgactta tgcaaa 26

<210> 122
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag4164 Reverse

<400> 122
tcaaattcctt ctgcgataca gt 22

<210> 123
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2197 Forward

<400> 123
ccaaggaaga cctcttcatc tt 22

<210> 124
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2197 Probe

<400> 124
tcttgcttac ggcataagcg ctctct 26

<210> 125
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2197 Reverse

<400> 125
ttcatttcta tgggacctca ga 22

<210> 126
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2197 Forward

<400> 126
ccaaggaaga cctttcatc tt

22

<210> 127
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2197 Probe

<400> 127
tcttgcttac ggcataagcg ctctct

26

<210> 128
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2197 Reverse

<400> 128
ttcatttcta tgggacctca ga

22

<210> 129
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag708 Forward

<400> 129
aaagatggga ctctgtatga c

21

<210> 130
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag708 Probe

<400> 130
cacgccatct tactgactgg tctggaa

26

<210> 131

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag708 Reverse

<400> 131
gtgcaaatcc caaagtgtca 20

<210> 132
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1313b Forward

<400> 132
cagctgcacg attaatgaag at 22

<210> 133
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1313b Probe

<400> 133
aggctttgga ctggccttca ccatt 25

<210> 134
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1313b Reverse

<400> 134
ccaaagttgt gtccagactc at 22

<210> 135
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1537 Forward

<400> 135
tttcaagaca ccctgtgata cc 22

<210> 136
<211> 26
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<220>
<223> Description of Artificial Sequence: Ag1537 Probe

<400> 136
acttcgtgtc ctgaatgttc caggct 26

<210> 137
<211> 22
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<220>
<223> Description of Artificial Sequence: Ag1537 Reverse

<400> 137
cagaggaatg aaggcataga tg 22

<210> 138
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2432 Forward

<400> 138
gtaggcaaag ggactcactg t 21

<210> 139
<211> 26
<212> DNA
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<220>
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<400> 139
cagaaatcaa taatcttga ctgccg 26

<210> 140
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<220>
<223> Description of Artificial Sequence: Ag2432 Reverse

<400> 140
gcacattacg tggctgaga 19

<210> 141
<211> 22
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<220>
<223> Description of Artificial Sequence: Ag1250 Forward

<400> 141
cgtggtaaac tctgccttat at 22

<210> 142
<211> 26
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<220>
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<210> 143
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<210> 144
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<220>
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<400> 144
ggaccccatt cgactactgt 20

<210> 145
<211> 23

<212> DNA
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<400> 145
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<210> 146
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
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<400> 146
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<210> 147
<211> 20
<212> DNA
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<220>
<223> Description of Artificial Sequence: Ag3797 Forward

<400> 147
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<210> 148
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag3797 Probe

<400> 148
atggtgctac actacggatc cgcat 25

<210> 149
<211> 20
<212> DNA
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<220>
<223> Description of Artificial Sequence: Ag3797 Reverse

<400> 149
gtcacagaat tctcgctcga 20

<210> 150
<211> 22
<212> DNA
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<220>
<223> Description of Artificial Sequence: Ag2439 Forward

<400> 150
tatcatcaact tgtgatggca aa 22

<210> 151
<211> 26
<212> DNA
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<220>
<223> Description of Artificial Sequence: Ag2439 Probe

<400> 151
aaaaccgaga gcactttgaa aacaca 26

<210> 152
<211> 22
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<213> Artificial Sequence

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<400> 152
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<210> 153
<211> 22
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<220>
<223> Description of Artificial Sequence: Ag2771 Forward

<400> 153
tgaacagaac tatgcgaaac aa 22

<210> 154
<211> 27
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<220>
<223> Description of Artificial Sequence: Ag2771 Probe

<400> 154
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<210> 155
<211> 21
<212> DNA
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<220>
<223> Description of Artificial Sequence: Ag2771 Reverse

<400> 155
ggctttcat ctttggatga a 21

<210> 156
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1674 Forward

<400> 156
ctcactcacc acaagggagt aa 22

<210> 157
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1674 Probe

<400> 157
tgacatcaaa ctcaacagtt cccagga 27

<210> 158
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1674 Reverse

<400> 158
gtctaggaga gagctgagca aa 22

<210> 159
<211> 78
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PAN domain
Consensus Sequence

<400> 159

Cys Ser Ser Phe Val Arg Val Pro Gly Arg Ser Leu Ser Gly Asn Asp
1 5 10 15

Ile Ser Val Val Asn Val Pro Ser Leu Glu Glu Cys Ala Ala Leu Cys
20 25 30

Leu Glu Glu Pro Arg Val Cys Arg Ser Phe Thr Tyr Asn Asn Lys Ser
35 40 45

Lys Gln Cys Leu Leu Lys Ser Glu Ser Ser Gly Ser Leu Pro Arg Leu
50 55 60

Lys Arg Pro Ser Gln Lys Val Asp Tyr Tyr Glu Lys Ser Cys
65 70 75

<210> 160

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Connexin
homologues Consensus Sequence

<400> 160

Ser Val Trp Gly Asp Glu Gln Ser Asp Phe Thr Cys Asn Thr Gln Gln
1 5 10 15

Pro Gly Cys Glu Asn Val Cys |Tyr Asp Gln Phe Phe Pro Ile Ser His
20 25 30

Val Arg